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THE UNIVERSITY OF ALBERTA

CAMPING PERCEPTION AND CAMPING SATISFACTION
IN
ALBERTA PROVINCIAL PARKS

by

© Russ Foster

A THESIS

Submitted to

The Faculty of Graduate Studies and Research

In Partial Fulfillment of the Requirements for
the Degree of Master of Arts

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Edmonton, Alberta

Fall, 1977

THE UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned have certified that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled CAMPING PERCEPTION AND CAMPING SATISFACTION IN ALBERTA PROVINCIAL PARKS, submitted by Russ Foster in partial fulfillment of requirements for the degree of Master of Arts.

Edgar L. Jackson
Supervisor

....

Peter Murphy

DATE June 24, 1977

ABSTRACT

The objective of this study is to identify and evaluate elements of the campground environment which have an effect on the camping experience. Here, campground environment refers to both the actual campground environment, as delineated through the use of distance and vegetative screening measurement techniques and the perceived campground environment, measured through the use of a questionnaire. Other variables extraneous to the campground environment, such as profile data on campers, and previous camping experience data were also tested in an attempt to understand if these variables also influence camping satisfaction.

Findings indicated that profile variables were not directly related to camping satisfaction, while another of the variables extraneous to the campground environment, previous camping experience was directly related to satisfaction. Of paramount importance was the finding that the perceived campground environment had a much more important effect on camping satisfaction than the actual campground environment. This meant that camping behaviour was not determined by the actual campground environment, but rather by the way in which the individual perceived that environment. The most important elements of the perceived campground environment were perceived intersite screening, perceived distance to adjacent sites, and perceived campground noise.

These findings have resulted in a better understanding of how camping satisfaction varies with changes in the campground environment. Such an understanding should aid management by either reinforcing intuitive planning techniques or by indicating areas where planning re-evaluation is necessary.

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CHAPTER ONE

CAMPGROUND BEHAVIOUR AND CAMPGROUND DESIGN

A. Introduction

The demand for camping facilities in North America has increased steadily in the past 30 years and is expected to increase another 120% before the year 2000 (Jubenville, 1976, p. 192). Unfortunately, our understanding of the desires of the camper, especially in relationship to the preferred campground environment, is definitely lacking. Researchers, such as Clark and his associates (Clark et al., 1971) have pointed out how this lack of understanding has led to conflicts between the more traditional recreation managers and the modern camping culture. The purpose of campground development is to create a total environment (physical, social, and psychological) that provides satisfactory camping experiences for the user. However, as Hendee and Harris (1970, p. 759) point out, ". . . the ability of managers to perceive the preferences of users determines to a large extent their ability to satisfy them". Therefore, an increased understanding of how the camper perceives the campground environment will make us better able to furnish the type of camping facility which will provide satisfying camping opportunities for the user.

Driver and Tocher (1970, p. 98) point out that the recreation planner has a major impact on recreational experiences through his influence on recreational opportunities. In the past, campground design has been heavily based on the subjective intuition of the design architect.

Driver (1976, p. 166) shows that a number of studies have indicated that managers' perceptions (or intuition) and users' opinions about the recreational value of facilities differ frequently (Lucas, 1964; Hendee and Harris, 1970; Peterson, 1971 and 1974). Clark and associates (1971) illustrated how this difference was the product of managers having a more traditional[1] perception of the camping experience while the campers were seeking more social experiences in campgrounds. Therefore, managers' decisions may not be sensitive to the desires of the camper. This parallels what has been frequently observed in aspects of resource management other than recreation. White, for example, has argued that managers make decisions on the basis of their own perceptions, their beliefs about what others prefer, and their beliefs about what others should prefer (White, 1966). They consequently may ignore, or even be unaware of what others (their clientele, for example) prefer. If recreation managers can be made aware of what elements of campground design provide satisfaction for campers they would be in a better position to make decisions which would meet the desires of those they are planning for. It is hoped that this study will increase the awareness of recreation managers of Alberta Provincial Parks, the agency in whose campgrounds this study was conducted.

The objective of this study is to identify and evaluate elements of the campground environment which have an effect on the camping experience. Here, campground environment refers to both the actual campground environment, as delineated through the use of distance and vegetative screening measurement techniques, and the perceived campground environment, measured through the use of a questionnaire. Other variables extraneous to the campground environment, such as profile data on campers, and previous camping experience data, were also tested in an attempt to understand if these variables also influence camping satisfaction.

---

[1] Traditional perception of camping refers to the emphasis on contact with the natural environment which was prevalent in camping before the advent of social camping.

Meeting these objectives should lead to a better understanding of how camping satisfaction varies with changes in the campground environment. As was alluded to above, such an understanding would either reinforce intuitive campground planning techniques or call for a re-evaluation of existing techniques which result in dissatisfying camping experiences.

B. Campgrounds and Campground Research

a) Introduction

In this age of rapid expansion of demand for camping facilities, recreation research on camping has struggled to keep pace. Research has shown how, over the past 25 years, campgrounds have changed their form to meet the changing goals of the campers. This section documents the change in form and role of campgrounds and indicates how researchers now commonly classify camping facilities. Furthermore, this section will review how future campground research can be made to have a wider range of applicability than is currently thought possible.

b) The Changing Campground Environment

Traditionally campgrounds have been viewed by many recreation managers as a means of controlling visitors to forest areas so as to ensure protection of the natural environment (Lime, 1974, p. 56). Over the years it has been found that the motivations and goals of campers are not homogeneous but rather, seemingly independent groups of campers exist, each with their own preference for experiences and facilities (Burch, 1964, 1966; Green and Wodsworth, 1966; Hendee et al., 1971). As managers began to take notice of these differing preferences they began basing their decisions on what White (1966, p. 109) refers to as, "their opinions as to what others prefer". One of these new preferences now commonly recognized as having increasing importance to campers is their desire for social experiences in the campground environment (Bultina and Klessig, 1969; Burch, 1969; Hendee and Campbell, 1969; Clark et al., 1971).

c) Campground Classification

It is now commonly felt that the wide range of camping experiences desired by campers demands that a wide spectrum of camping opportunities be provided within a given geographical area (Jubenville, 1976, p. 194). Classification systems have been developed to describe the different types of facilities which may be needed in a given area. Wagar (1963) developed what is currently the most widely used taxonomy of campgrounds. His seven part classification includes transient, central, long term, forest, peakload, backcountry, and wilderness campgrounds. Writers such as Burch and Wenger (1967) have simplified this into three parts which include intensively developed campgrounds, combination car oriented campgrounds, and backcountry camping areas.

At this time, the Provincial Parks Branch of Alberta Recreation, Parks and Wildlife (the agency with whose permission this study was conducted) are providing a very narrow range of camping facilities.[2] The Alberta Provincial Parks provide what Wagar would describe as a hybrid between central and long term campgrounds.[3] These campgrounds are used by campers both as headquarters for travelling out to visit surrounding points of interest (central campgrounds), and, more importantly, these campgrounds are usually "introverted" as the campground itself and the immediately surrounding area become the focus for most of the recreational activity (long term campground).[4] The type of experience offered by these campgrounds ranges from intensively social to a slight environmental orientation, but basically the experience desired by the campers using these facilities is a social one.

d) The Sample and the Elaboration Model

As a result of the limited variety of facilities available within the Alberta Provincial Parks system only a specific range of recreational clientele were dealt with in this thesis. The sample includes only those who have a propensity for camping in campgrounds of medium to high intensity of development which offer social camping experiences. This is of significant theoretical importance as some writers, notably Elwood Shafer (1969), have pointed out that due to the diversity of campers and their goals, this does not allow campground research universal applicability. Moreover, Shafer states that campground research is only applicable within the campground(s) in which the data were gathered. For example, data gathered on forest campground users do not apply to long term campground users who, due to their social orientation, have camping goals different from the forest campground user. Therefore, to avoid this particular pitfall, the results to be presented here refer specifically to the type of long term - central campgrounds found in Alberta Provincial Parks and not to other styles of campgrounds offering an intensive or primitive environment and experience.

---

[2] This is partly the result of having two other provincial agencies, Highways, and the Forest Service, involved in the provision of camping facilities in Alberta.

[3] Burch and Wenger (1967) would classify these campgrounds as a hybrid between intensively developed and combination car campgrounds.

[4] Of those surveyed 56.6% of the respondents stated that they chose the campground because of the environmental and recreational attractions found inside or near the campground.

However, contrary to Shafer's opinion, the results and analysis from this study will have some measure of applicability outside of the campgrounds in which the data were gathered. Shafer feels that results are only applicable to the location in which they originated. However, Shafer makes these statements based upon an analysis which only reports on simple frequency distributions.

The theoretical basis for the data analysis to be conducted in this study is the elaboration model outlined by Rosenberg (1968). The elaboration model poses two basic questions; why, and under what conditions, does a relationship hold true. To understand the conditions under which a relationship holds true it is necessary to utilize control variables. The use of control variables allows the researcher to make statements which are contingent upon certain conditions being present. It is intuitively obvious that not all campgrounds are alike. However, it is important to know how campers react to conditions which are common to all campgrounds. This allows the researcher to make statements which would be applicable to all campgrounds (which provide similar experiences) in which these common conditions exist. Shafer, rather than subjecting his data to further testing with control variables, to check whether consistencies could be found between campgrounds, ended his analysis, which resulted in his observation that campground research did not lend itself to transferability of results.

Therefore, this study rejects Shafer's notion that the average camper does not exist and puts forth the proposition that results can be transferable if analysis indicates that campers exhibit consistent behaviour in different campgrounds which have similar environmental conditions.

C. Behavioural Studies and Campground Research

A resource is a culturally determined concept stemming from an interaction between man and his environment. Understanding resources means understanding human behaviour. Many studies in the past have shown that behaviour is not environmentally determined but varies with the individual's perception of the environment (Jackson, 1974; Adams, 1975; Sims and Baumann, 1972; Sewell, 1971; Sims and Saarinen, 1969; Burton and Kates, 1964). Therefore, to understand behaviour in the recreational context it is advantageous to study recreationists' behaviour in their recreational environments. To facilitate such study it is useful to think of recreation not as an activity but in the behavioural context of recreation as an experience.

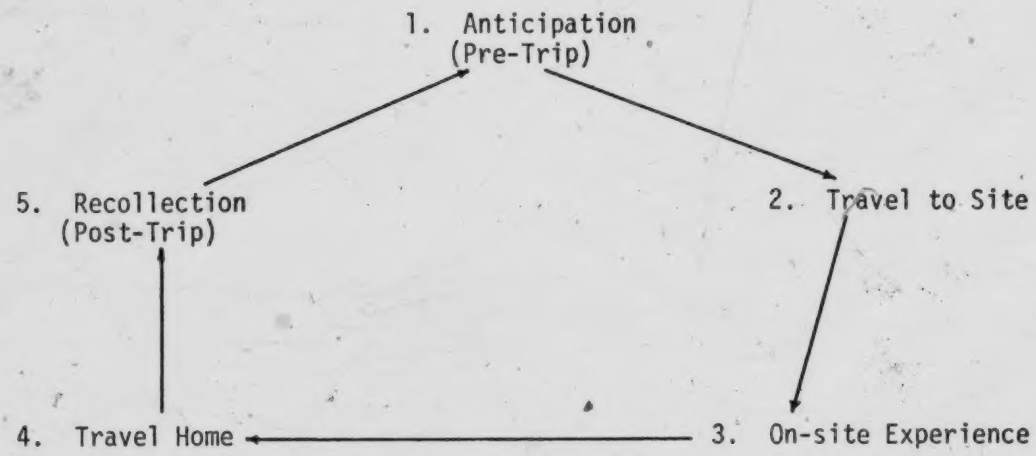
As Driver (1975, p. 165) points out, the behavioural approach to recreation differs radically from the conventional approach to the subject. The conventional approach stresses an activity orientation while the behavioural approach defines recreation as an experience. In a later paper Driver (1976, p. 163) defines experience as being the sum of the participant's mental, physical or other responses to a recreational engagement. Experiences which do not meet the anticipated experience will be dissatisfying, while those that meet the anticipated experience will be satisfying (Bultena and Klessig, 1969).

Marion Clawson (Clawson and Knetsch, 1966, p. 33) provides us with a useful yet simple model which aids in understanding the concept of satisfaction in the context of the total recreational experience (Fig. 1.1). The model consists of five stages: 1) anticipation, 2) travel to the site, 3) on-site experience, 4) travel home, and 5) recollection. The anticipation phase is where the expectations for the trip are produced. The recreationist travels to the site where he participates in an on-site experience. The recreationist then travels home where he recalls aspects of the total experience. If the anticipated experience is met he will be satisfied with the trip. However, if in some way his anticipated experience is not met he will feel less than totally satisfied. These recollections then feed back into the anticipation for future trips, thereby closing the model.

The concept of satisfaction has been utilized by many researchers as a means of measuring quality of the experience obtained by persons participating in various outdoor recreation pursuits. Mercer (1971, p. 271) shows that satisfaction is becoming increasingly popular as a measure of success in many

FIGURE 1.1

The Clawson Model of the Recreation Experience


1. Anticipation
(Pre-Trip)
2. Travel to Site
3. On-site Experience
4. Travel Home
5. Recollection
(Post-Trip)

Source: Clawson & Knetsch (1966)

spheres of human activity. Driver (1975, p. 166) goes on to say that specific satisfying experiences determine the attractiveness of a particular activity or environment. However, there has been little change since 1969 when Bultena and Klessig (1969, p. 348) noted:

> While several studies have reported on the satisfaction that campers were deriving from their experiences, virtually no attention has been given to identifying and testing factors that contribute to differential satisfaction patterns. Since human satisfaction stands as the ultimate goal of resource programs directed towards providing camping opportunities, such study is important.

The concept of satisfaction is used in this study to determine how particular elements of the campground environment, whether actual or perceived, affect camping satisfaction. If the element has a positive effect on the camping experience the level of satisfaction obtained should be higher, while the converse is true of elements having a negative effect on the camping experience. Therefore, the concept of satisfaction is of considerable theoretical importance as it allows the researcher to understand how the camping experience is affected by the actual and perceived campground environment. The concept of satisfaction is also of practical importance as it allows the researcher to pin-point actual elements in the campground environment which are dissatisfying, thereby allowing for their modification.

D. Thesis Organization

The rest of this thesis is organized into eight chapters. Chapter 2 consists of a literature review where the objectives of the study are formulated. Chapter 3 deals with the research methodology employed in this study. The fourth chapter is a description of the seven study campgrounds. Chapters 5 through 7 contain the analysis of the data. Chapter 5 deals with the variation in satisfaction among the seven campgrounds. Chapter 6 shows how variables extraneous to the camping environment affect satisfaction, while Chapter 7 deals with variables related to the actual and perceived campground environment and their effect on satisfaction. Chapter 8 is a recommendations chapter based upon the findings in the previous three chapters. Chapter 9 is the concluding chapter and deals with summarizing and discussing the findings of the thesis as well as adding recommendations for future research.

CHAPTER TWO

LITERATURE REVIEW AND SPECIFIC OBJECTIVES

A. Introduction

In this chapter the dependent variable of the study, camping satisfaction, and independent variables will be examined in an attempt to define relationships for testing. The major concern of this literature review is to understand which of the independent variables are likely to be most closely associated with camping satisfaction. The independent variables fall under these broad headings: socio-economic characteristics of the camper; previous experience of the camper; site characteristics of the campground; and the camper's perception of the campground environment. From the discussion of these relationships it will be possible to construct a general model of the variables, and from this understand what relationships one might expect to find.

The provision of high quality recreational opportunities, as defined by camper satisfaction, stands as the ultimate goal of resource programs directed towards providing camping facilities (Bultena and Klessig, 1969, p. 348; Hendee and Campbell, 1969, p. 13). To better understand how management agencies can provide recreationists with satisfying camping experiences it is first necessary to understand what camping satisfaction is, and second, to understand what variables can affect camping satisfaction.

B. Camping Satisfaction: The Dependent Variable

The concept of satisfaction has been a focus of interest for geographers since its introduction by Simon (1957) in his satisficer theory. This theory refers to an actor making decisions, under conditions of uncertainty, which are good enough to meet his aspiration level rather than making a decision which would maximize his returns. If the aspirations of the actor are met he is said to be satisfied and therefore considered to be acting rationally. While this theory may aid in understanding the concept of satisfaction it is difficult to operationalize in this form. Hence, the more practical term of camping satisfaction.

Bultena and Klessig (1969, p. 349) tell us that, "satisfaction with camping is the degree of congruency between aspirations and perceived on-site experience". This indicates that camping satisfaction has two major components: 1) aspirations, and 2) on-site experience.

A general description of anticipation, based on Stage 1 of Clawson's (Clawson and Knetsch, 1966, p. 33) five part model (see Chapter 1 for a diagramatic representation of this model) can be postulated. Anticipation refers to a set of expectations an individual has for an upcoming recreational venture. As Mercer (1971, p. 264) points out, anticipation is a product of many interrelated psychological factors, of which the most important are motivations, prior experience, degree of spatial integration,[1] social status, and values which have the effect of structuring the individual's awareness space and space preferences within it. Dissatisfaction may also begin in the anticipation stage if there is excessive optimism, as it may lead to later frustration and disappointment when the camper realizes the expectations cannot be met (Clawson and Knetsch, 1966, p. 34).

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[1] Degree of spatial integration refers to the individual's awareness of his recreational hinterland, with this awareness affecting what recreational opportunities are available to him in making a choice of location for a recreation trip.

Camping satisfaction is equally dependent upon the quality of the on-site experience. As Hendee and Campbell (1969) and Clark et al. (1971) show, camping satisfaction is greatly diminished when on-site experience, as determined by the facility provided, does not meet the camper's expectations. The quality of the on-site experience can be diminished by two factors: 1) inappropriate facility design, and 2) poor quality facilities. In both instances these factors result in expectations not being met or fulfilled thereby resulting in dissatisfying on-site experiences.

Social psychologists Shelly and Adelburg (1972) have shown that the environment interacts with the individual to restrict possible satisfaction through a number of causes. The restrictions are partially caused by the fact that individuals interpret the 'real' environment through perceptual filters. Therefore measuring satisfaction directly is a difficult task as it is the product of a number of interrelated variables. To simplify this matter a surrogate can be used to measure satisfaction. In this study the strength of the camper's affect for a particular campground is used as the surrogate measure for satisfaction (for a further explanation see Chapter 3). This surrogate measures in one response a combination of variables, such as the actual campground environment, the perceived campground environment, and the individual's psychological make-up, which affect satisfaction.

C. The Independent Variables

If one is planning to provide satisfying recreational experiences one must have accurate information relating to the environmental attitudes and requirements of a recreational area by the users (Mercer, 1971, p. 269). This information can be garnered by looking at some of the variables which affect camping satisfaction and attempting to understand how these variables explain possible variation in camping satisfaction.

The independent variables which affect camping satisfaction can be broken down into two broad categories which are congruent with the two components of camping satisfaction: anticipation and on-site experience. Profile, or socio-economic variables relating to the campers, and previous experience variables can both be seen as affecting the campers' anticipation or expectations for a camping venture. Variables pertaining to actual site conditions and managerial policy are more closely related to on-site experience. The importance of the perception of the 'real' camping environment by the campers must also be considered here as it affects, to a large extent, the dimensions of the gap between expectations and on-site experience. The rest of this chapter will be utilized to discuss the relationships which exist between camping satisfaction and the independent variables mentioned above.

a. Profile Variables

In the past many studies have shown the importance of profile data as indicators of camper preference. However, this study is not concerned with preferences but understanding camping behaviour once the camper is on-site.[2] Burch (1969, p. 125) has argued that the consistently poor fit between standard social variables (profile data) and leisure behaviour suggests that they are inadequate for the planner and researcher alike. However, studies in the field of natural hazards have shown that profile data can explain variations in perception (Burton and Kates, 1964). Therefore, the following short review of the profile variables will be undertaken with an eye towards understanding how these variables may affect perception of camping environments. The variables to be considered here are: 1) age, 2) income, 3) education, 4) occupation, and 5) place of residence.

i) Age

Age is one of the profile variables most strongly related to camping preference. Aging is accompanied by declining physical stamina and a consequent reduction in more strenuous outdoor activities (Hendee et al., 1971, p. 31). Burch (1966), Burch and Wenger (1967), LaPage and Ragain (1971a) and Cole and Wilkins (1971) use the concept of life cycle to explain how age affects the way in which individuals choose outdoor recreational activities.

Of interest in this study is how the age of the respondent might affect the way he responds to a particular attribute of a campground environment. The question raised is, does age produce variation in satisfaction in similar camping environments?

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[2] Preference does have some effect on satisfaction. For instance, if an individual has a preference for a certain type of camping and due to its unavailability must substitute a different style of camping he may well be dissatisfied.

ii) Income

Almost all forms of outdoor recreation require one form or another of income expenditure as the outdoor recreation experience requires travel, and specialized equipment (Clawson and Knetsch, 1966, p. 103). Burch and Wenger (1967) found that income was not significantly related to camping preferences for three styles of campgrounds. However, income may be important in terms of its effects upon camping satisfaction because of the influence it exerts over the type of camping equipment a camper owns (LaPage, 1968). LaPage found that the more discretionary money available to a recreationist the more he can afford, and will pay, to purchase camping equipment. The type of equipment used by a particular camper affects the type of facilities he desires which, in turn, may temper that camper's perceptions of the camping environment.

iii) Education, Occupation and Place of Residence

Education, occupation, and place of residence (rural vs. urban) have also been written about extensively in terms of their relationship to camping preferences. It has been suggested that the higher the educational attainment the higher the person's propensity for wilderness camping while those of lower educational attainment prefer more developed campgrounds (Burch and Wenger, 1967; Hendee et al., 1968; Hendee, 1969; Hendee et al., 1971). Occupation is a variable which is closely related to both education and income. As Rosenburg (1968, p. 165) illustrates, level of education is closely correlated with occupational attainment which then affects income. Therefore, occupation reflects much the same preference distributions as income and education. It has been shown in studies by the O.R.R.R.C. (1962), Hendee (1967, 1969), Hendee et al. (1968), Knopp (1972), and Catton (1973), that campers with an urban background tend to be appreciative users (hikers, photographers) of the outdoors while those with rural backgrounds tend to be consumptive users (hunting, snowmobiling, A.T.V.'ing).

The preceding paragraph indicated how education, occupation, and place of residence may affect camping preference. However, it is unclear at this time whether these variables will have an effect on how an individual will perceive a particular camping environment after the choice is made and the camper is on-site.

b. Previous Camping Experience

Previous camping experience may be defined as the amount and nature of a camper's experience in camping in the past. As was demonstrated above, profile variables are associated with the type of camping an individual prefers to engage in. Other related factors which may influence camping preferences, and ultimately camping satisfaction, are childhood camping experience (Burch, 1969), and previous adult camping experience (Lucas, 1970).

Burch (1969, p. 143) pointed out that adult camping preferences were modified during youth by socialization by the family. He suggested that adult campers, in attempting to recapture the experiences they may have had as youths, move on to more rigorous styles of camping than they had engaged in as children. Those who did not have childhood camping experience tend to enter into camping at the least demanding style of camping in highly developed campgrounds (Burch and Wenger, 1967; Krutilla, 1967).

These findings suggest that campers tend to move from less demanding to more demanding styles of camping as they gain more experience. This change in camping preferences with increasing experience has been named "the dynamic model of camping" (Clark et al., 1971, p. 145). The fact that this is a dynamic process does not automatically mean that campers will move from easy access camping all the way to wilderness camping. LaPage (1967) suggested that campers may be creatures of habit when he introduced the "repeat visit cycle" concept. He illustrated that the incidence of past visits to a campground resulted in longer visits and more definite plans to return. These findings were confirmed in later studies by LaPage (1968) and LaPage and Raigan (1971b).

The repeat visit cycle has been dealt with by other authors, notably Burch (1969), Mercer (1971), and Knopp (1972), under the name of the familiarity hypothesis. This hypothesis suggests that campers return with some frequency to campgrounds which, in the past, have provided them with some measure of satisfaction. Mercer (1971a) discusses this same phenomenon, stating that many people are unadventurous in their recreation behaviour, always visiting familiar sites and demonstrating a reluctance to break out of habitual behaviour patterns. These studies suggest that campers may stop progressing through the camping continuum and become accustomed to one style of camping.

Lucas (1970, p. 9) has written that there is a relationship between camping satisfaction and the years one has been participating in a given style of camping. He found that satisfaction increased for users of Michigan National Forest campgrounds with the number of years they had been camping in the National Forests. Lucas goes on to generalize that campers who are used to a particular style of camping will be dissatisfied with another style of camping because it does not meet the expectations the camper has built up in his years of previous experience.

Past experience is an important variable in terms of this study in that it can be expected to have a profound effect on camping satisfaction. If a camper is camping in a facility which is not commensurate with his past experience there is a much higher propensity for that camper to be dissatisfied than if he camped in a style of campground with which he was familiar.

c. Site Variables

If a camper chooses a campground which meets his preferences and past experience there still exists the possibility that the campground will not be congruent with that individual's expectations. When this happens it is usually the result of a specific campground design (Lime, 1974). The campground design will determine how close campers can locate together, and therefore how much psychological pressure will be placed on the campers as a result of territorial encroachments onto their sites.[3]

In this section the various component elements (site variables) of campground design will be separately discussed so that an understanding may be gained on how these variables affect camper satisfaction. The variables to be discussed include campsite spacing, vegetative screening, the location of washrooms, water supply and firewood, and noise in the campground.

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[3] Reference should be made to E.T. Hall's, The Hidden Dimension, 1969.

i) Campsite Spacing

Campsite spacing refers to the distance that two adjacent sites are located from each other as measured from the activity centre of each site (usually the firepit). To understand how campsite spacing affects camping satisfaction it is first necessary to have a rudimentary understanding how these distances are perceived.

Perception of the environment requires man to interpret the physical and social components of his environment, here the environment being the campground (Beck, 1967, p. 18). Lime and Stankey (1971, p. 176) postulate a similar definition. They say that perception is a process whereby an individual receives information from the social and physical environments in which he operates, interpreting this information in the light of past experience and attitudes.

The actual distance between the adjacent sites is referred to by Beck (1967, p. 21) as objective space, or the space measured by universal standards along the dimensions of distance, size, and shape. However, not all campers relate to these distances, or perceive these distances, in a similar fashion. Beck (1967, p. 21) suggests that the perception of this objective space transforms it into what he calls ego space, or a space which is peculiar to each individual. Ego space is the individual's adaptation or perception of objective space. This perceptual process, whereby objective space is evaluated and space preferences are formed, is of critical importance in understanding campers' desires to locate at varying distances from each other.

The amount of space campers desire is dependent, to a large extent, upon the type of camping experience desired (Lime and Stankey, 1971). Hendee and Campbell (1969) and Clark et al. (1971) have noted a shift in camping values away from environmentally oriented experiences based upon primitive attractions of the natural environment to social, urban-oriented styles of camping as manifested within large, modern campgrounds. This shift in values has resulted in a shift in preferences by campers in the types of campground environments they desire.

Studies by Lucas (1970) and Cordell and James (1972) attempted to solicit campers' attitudes towards campsite spacing. Both studies looked at the spacing of campsites in what Burch and Wenger (1967) would describe as combination campgrounds in a cursory manner, in an attempt to understand how these spacings affected camping satisfaction. While these studies were able to illustrate that campers do have preferences with regard to campsite spacing, neither study pursued the problem to its logical conclusion by suggesting what these preferences were.

ii) Vegetative Screening

As Hall (1969, p. 44) points out, "space perception is not only a matter of what can be perceived but what can be screened out". The relationship of distance between adjacent sites and vegetative screening is particularly germane to this study. As Hall (1969) suggests, the less the visual contact between sites, because of vegetative screening, the greater the propensity the campers should have for perceiving this distance between sites to be further than it actually is. While this relationship may seem obvious, Lucas (1970, p. 12) states that, "the obvious physical relationship between distance and screening may not be recognized by campers". Lucas makes this statement in the light of discovering that twice as many of those sampled in his Michigan National Forest study wanted more screening than distance between campsites (Lucas, 1970, p. 12).

Some confusion seems to exist in the literature with regards to campers' preferences for understory vegetative screening. Cordell and James (1972, p. 18) state, "campsites with relatively sparse understory under 2.13 meters high are more desirable than densely vegetated sites". This finding is contrary to those reported by Lucas (1970). One must consider that these studies were conducted in dissimilar areas and therefore this situational variable may account for this discrepancy in results. Due to this divergance in the literature it is difficult to posit hypotheses on how Alberta campers would react to vegetative screening in their Provincial Parks. However, gaining an understanding of how campers in Alberta Provincial Parks react to vegetative screening is one of the aims of this study.

iii) Washrooms, Water, and Firewood: The Support Facilities

Washrooms, water, and firewood supply, in the terminology of Orr (1971, p. 24), can be referred to as knowns or predictables. That is, activities related to these facilities are movements of necessity rather than choice. Campers need, or perceive a need, for these facilities and therefore travel within the campground to use them. Therefore, these three facilities may also be referred to as traffic generators.

Traffic generators are of particular importance to campground design for two reasons: 1) due to the amount of traffic they generate the location of these facilities can have a profound effect upon the environmental carrying capacity of the campground (Orr, 1971, p. 25). Improper location can lead to random paths of travel to these facilities which eventually results in widespread ecological damage. 2) of importance to this study is the location of these facilities in relationship to the campers so as to provide them with convenient access to them. Clark et al. (1971, p. 146) state, ". . . (modern) campers have a preference for activities and facilities often associated with the urban environment, and therefore developed facilities take precedence over contact with the natural environment." Therefore, the convenience of these facilities may have an important effect on camping satisfaction.

Due to the fact that these facilities are traffic generators this location will influence the route an individual takes to use them. Cordell and James (1972, p. 18) found that campers in their study area desired to be located further from the comfort stations to avoid the foot traffic going to and from them. Routes crossing a camper's site can be seen as an invasion of his personal territory and will therefore be stress producing and have a negative effect on that camper's camping satisfaction.

iv) Noise

Noise is a by-product of the campground environment which can have a severe impact on camper satisfaction. Unlike other site variables noise levels, while they are dependent to some extent upon campground design, are also dependent upon the way the campground is managed.

The noise which is of major concern to this study is nuisance noise, or noise which may have a negative impact on a camper's on-site experience (Clark et al., 1971b). Dailey and Redman (1975) discovered that different types of camping experiences have different tolerance levels for noise. They found that the more primitive the style of camping the less noise the campers are willing to put up with before it begins to affect camping satisfaction.

d) Relationship to Other Geographic Perception Studies

Studies, especially in the field of natural hazard research, have shown that man's behaviour is not directly determined by his environment, but rather by his perception of that environment. For example, Burton and Kates (1964) illustrate how perception of natural hazards varies between different groups of resource users. Sewell (1971) shows how perceptions and attitudes of engineers and public health officials vary on water quality problems. Therefore, based on the findings of these studies, and many others, it can be expected that campers' behaviour in campgrounds is a result of their perception of the campground and not the result of direct influence by the actual campground environment.

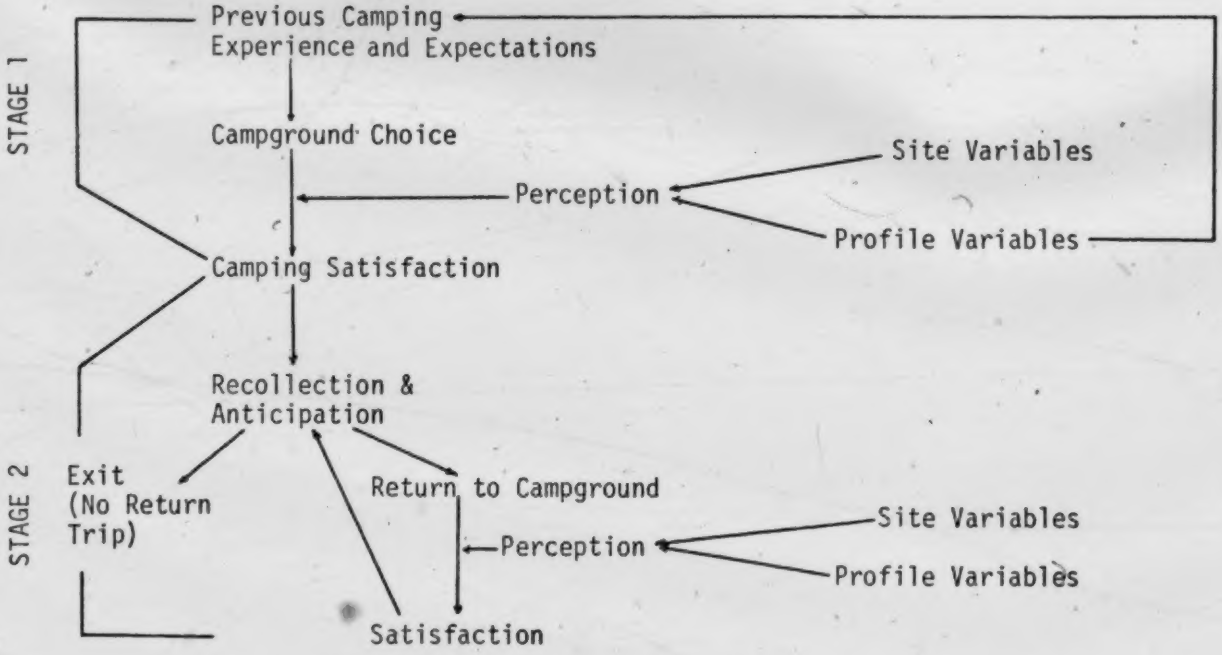
As such, percpetion is of critical import to this study as it will affect the camper's reaction to the camping environment by affecting the level of satisfaction he receives from that environment.

D. The Descriptive Model

Figure 2.1 is a general descriptive model of the independent variable

FIGURE 2.1

Hypothesized Relationships Between the Dependent
Variable Camping Satisfaction and
the Independent Variables


STAGE 1
Previous Camping Experience and Expectations
Campground Choice
Site Variables
Perception
Profile Variables
Camping Satisfaction
Recollection & Anticipation
STAGE 2
Exit (No Return Trip)
Return to Campground
Site Variables
Perception
Profile Variables
Satisfaction

groups and their interrelationships as they pertain to this study. The preceding review of the literature has demonstrated that the linkages which are shown in the model do exist. For example, earlier sections illustrated the relationship between the profile variables and previous experience. It was also demonstrated that the camper's previous experience dictates, to a large extent, the anticipation or expectations he has for a given camping trip. All independent variables were related to the dependent variable, camping satisfaction, to illustrate that intuitively there is a basis for believing that they will explain some measure of the variance in the dependent variable.

This model has two stages. This is necessitated by the fact that on-site experience may differ based on whether a camper has had previous experience with a particular campground. Therefore, stage one of the model refers to those who have had no previous experience with the particular campground while stage two refers to those who have camped there in the past.

The model shows that after one trip to the campground the level of satisfaction obtained there will affect the anticipation for future return trips. The model is dynamic in that it follows the camper from his first visit to a particular campground and onwards through successive visits. If after one trip, or numerous return trips, on-site satisfaction begins to diminish (due to either changing personal situations or deterioration of campground conditions) this would in turn affect the anticipation of further trips. If preceding trips were so negative that the camper was not receiving any benefits from camping at the location in question he would either exit from that campground to look for another place to camp or discontinue camping altogether.

E. Objectives of the Study

It was the objective of this study to understand how the following independent variables affect the dependent variable, camping satisfaction. Further it was also the objective of this study to understand how the relationships between the dependent and independent variables can be used to aid in bettering campground designs.

The independent variables:

- profile variables
  - age
  - education
  - sex
  - income
  - place of residence
- previous camping experience
- the actual campground environment
  - distances from site to: water
    firewood
    toilet
    adjacent sites
  - actual screening between sites
- the perceived campground environment
  - perceived distances to: adjacent sites
    road
    water
    firewood
    toilet
    major landform attraction

  - perceived screening
  - perceived noise in campground
- type of equipment used

CHAPTER THREE

METHODOLOGY

A. Introduction

The methodological procedures used in this study were based on the need to gather data on both the perceived and actual campground environments to meet the objectives put forth in Chapter 2. These considerations, plus those concerning validity and reliability, guided the selection and development of the data gathering techniques to be reviewed in this chapter.

B. Data Gathering Techniques

To understand how recreationists perceive their campground environment, specifically their perceptions of the amount of space available to them it was necessary to use a technique which allows the researcher to gather data from the campers while they are on-site. This was essential for two reasons: 1) campers' perceptions of distance are related in some manner to an actual distance, therefore to better understand campers' perceptions of distances it is necessary to know what actual distance the perceived distance is related to. If this distance is known for groups of campers it may then be possible to locate optimal distance based on campers' perceptions. A household survey would not allow for the easy matching of campers' perceived distances against actual distances as it would be impossible, in most instances, for the respondent to remember his actual location in the campground. 2) Any methodology which solicits information after the camper leaves the site is also receiving information which has been affected by the return trip and recollection phases of the recreation trip (Clawson, 1966).

As on-site data collection is the only feasible means by which to collect data to test the objectives, three possible on-site data gathering techniques could be used. They are: 1) on-site interviews, 2) self-administered questionnaires, and 3) observation techniques. Of these three techniques on-site interviewing was selected as the methodology to be employed here for reasons to be enumerated below.

a) On-site Interviewing

As Burton (1975, p. 35) points out, interviews can take three forms: 1) standardized interviews, 2) semi-standardized interviews, and 3) non-standardized interviews. The standardized or structured interview is used when the same information is to be collected from all the respondents (Burton and Cherry, 1970, p. 43). As the result of having widely separated study areas (a fact to be dealt with later in this chapter), it was necessary that the data be in a format which produced results comparable between all seven of the study areas. Without this comparability the drawing of conclusions on a level more general than the individual campground would be fruitless. Therefore, as Burton and Cherry note in their discussion on the structured interview, "the differences in responses reflect differences among respondents, and not differences arising from the different questions asked or the differences in meaning which the respondents have attributed to the same question" (Burton and Cherry, 1970, p. 43).

As is the case with all data gathering techniques in the social sciences, the interview method has many advantages and disadvantages. Further, no one data collection technique is superior to another; rather, all have strengths and weaknesses. Therefore, the aim of the researcher should be to maximize the strengths of the technique most suitable to his hypothesis while attempting to minimize that particular technique's weaknesses (Phillips, 1968, p. 109). The following is a review of the advantages and disadvantages of the structured interview technique with a view to showing its applicability to this study.

b) On-site Interviewing and Structured Interviews

The prime advantage of the interview technique is in its flexibility when gathering data. This flexibility, when using the structured interview in the campground situation, is crucial. In this situation the interviewer talks to campers of widely varied social and educational backgrounds. The interview technique allows for the interpretation of questions for those who are slightly unsure of their meaning (Clarke and Clarke, 1970, p. 114; Ferman and Levan, 1975, p. 42). Therefore, the interviewer can be certain that the respondent fully understood the nature of the question and the information he is being asked to give (Burton and Cherry, 1970, p. 41). This aids in ensuring that replies from all the study areas are comparable.

The interview situation allows for a rapport to develop which is not possible with techniques which do not incorporate face to face contact. This rapport maintains respondent interest in the questions being put to him and helps ensure participation to the completion of the questionnaire (Burton and Cherry, 1970, p. 41). Further, the development of this rapport affords an opportunity for the interviewer to give information that can develop the confidence of the respondent in the interviewer (Clarke and Clarke, 1970, p. 115).

Face-to-face contact with the respondent afforded by the interview technique has many other benefits. Chief among these is the cooperation the interviewer receives from the respondent when approached personally, or the cooperation received because the respondent does not wish to appear uncooperative (Burton and Cherry, 1970, p. 42). The interview technique, which has as its hallmarks face-to-face contact and flexibility, also has one other rewarding trait, that being a consistently high response rate. This fact was confirmed by this study in which there were only six outright refusals to complete the interviews in seven weeks of field work.

On-site interviews also allow the interviewer to control who answers the questionnaire. This is unlike a self-administered questionnaire where it is impossible to control the number of people who supply input into the answering of a single questionnaire. In a perceptual study such as this a multiplicity of respondents answering one questionnaire would render that questionnaire invalid in that individual perceptions would be lost and the responses garnered would most likely be affected by a peer group norm.

As previously mentioned, there are also disadvantages associated with the use of the interview technique. The majority of these problems are associated with bias which may arise from the interviewer causing the respondent's answer to deviate from the 'true' answer (Hyman et al., 1954, p. 226). This bias, or interviewer effect, is usually the result of over rapport with the respondent. As Burton and Cherry point out,

> (the interviewer). . . may unwittingly influence the respondent's replies by such minor details as her appearance and tone of voice . . . The respondent may tend to give answers and express opinions which he thinks the interviewer expects to hear from him or which he thinks the interviewer would approve of. (Burton and Cherry, 1970, p. 42)

There is potential for interviewer bias to affect the data even if the interviewer has not influenced the respondent's answers. In the process of recording responses on the questionnaire form the interviewer may, through the process of selected perception or selected exposure only record the responses he feels are worthy of recording (Freedman et al., 1970, p. 283). This has the effect of biasing the recorded response by not allowing the full range of the respondent's ideas to be recorded. As Phillips points out,

> The (interview) technique forces the interviewer to tread a fine line; if he is overly demonstrative, the respondent may look to him for approval or disapproval, but if he is too reserved, his degree of interaction with the respondent may be so minimal that the respondent will not be motivated to do his/her best." (Phillips, 1966, p. 113)

The best means to combat the bias inherent in the interview technique is by making all those concerned with the interviewing aware of the areas where bias may occur. An awareness of the potential for bias allows the interviewer to avoid actions which may affect the validity of the data gathered. With the author being the sole interviewer working on this study there was little chance that internal inconsistencies in the data gathering would arise due to differences in question presentation.

C. The Questionnaire

The questionnaire is a tool by which the researcher operationalizes his hypothesis, making it amenable to gathering data for the eventual testing of hypothesized relationships. To develop questions which are meaningful and will produce the type of data desired, the researcher must first be aware of the relationships that exist, or may be expected to exist, between dependent and independent variables.

The development of the finished questionnaire follows four stages: 1) selection of question types or mode, 2) question wording, 3) question ordering, and 4) pre-testing the questionnaire. All stages must be given careful consideration as all heavily influence the type of responses which will be gathered or the overall response rate to the questionnaire.

a) Question Mode

There are two broad categories into which questions can be grouped: open and closed-ended questions. Burton and Cherry describe the two question types in the following terminology:

> The closed question is one where the respondent is offered a choice of alternatives (predetermined) replies. The open (or free answer) question is not followed by such a choice, and the answer must be recorded in full. (Burton and Cherry, 1970, p. 57)

Both modes of question have advantages and disadvantages which influence where and when they should be used. As Ferman and Levin (1975, p. 43) point out, open-ended questions raise an issue but allow the respondent to answer in his own terms. This generates the widest possible response as it does not exclude any type of response at all. Open-ended questions put very few words into the respondent's mouth (Phillips, 1966, p. 117) thereby minimizing bias which may be the result of the restricted answers available in closed-ended questions. Therefore, open-ended questions are effective in that they allow the respondent to reveal his own definition of a situation, thereby encouraging spontaneity of response.

The disadvantage of open-ended questions is that they produce responses which follow many different dimensions (Phillips, 1966, p. 117). Burton and Cherry (1970, p. 57) point out that the respondent may only speak of what is upper most in his mind, therefore it is difficult to tell at what level the respondent was thinking at the time he answered the question. This is an important methodological constraint, but one which can be partially resolved by judicious probing by the interviewer, even though this does increase the risk of interviewer effect or bias.

Another problem arising from the multi-dimensional responses produced by open-ended questions is the difficulty of post-coding the data into a quantifiable form. The task of post-coding involves grouping the total range of responses for a given question into definable groups, dependent upon the dimensions the responses take. The range of responses are then classified into the categories they most resemble for the purposes of analysis.

Closed-ended questions offer the respondent a choice among specific alternatives, thereby ensuring that the responses fall along the desired dimensions (Ferman and Levin, 1975, p. 43). This type of question requires no writing on the interview form and is simpler to quantify as the interviewer must only check off the pre-recorded answer selected by the respondent. Therefore, the advantage of the closed-ended question lies in the ease of administration and analysis. However, this is also its disadvantage. The ease of administration produces a lack of spontaneity in the responses, possibly introducing bias by offering alternatives the respondent would not have thought of himself (Burton and Cherry, 1970, p. 57-58).

In summary, one must say that open and closed-ended questions serve different purposes and therefore one type cannot be said to be 'better' than the other. Burton and Cherry (1970, p. 58) make the following remarks on open and closed-ended questions, "Open questions can usually be employed only in order to explore the issue at hand. Closed questions . . . can be used to bring all sides of a question to the respondent's attention."

The selection of the mode of question to use for the gathering of data has its theoretical basis in the above statement by Burton and Cherry. On issues which demand exploration, such as the reason behind the choice of a given campground or campsite, likes and dislikes in the campground, and why the respondents have a certain degree of affect or lack of affect for campsite spacing or inter-site screening (questions, 3, 4, 5, 6, 10, 11, and 20, Appendix A), open-ended questions were employed. Closed-ended questions were employed to gather two types of data, factual and attitudinal. The factual questions referred to length of stay, previous experiences and socio-economic profile data, all of which lend themselves to the closed format. Attitudinal data on preferences for location (relative to campground facilities), inter-site screening, and campground noise were gathered through the use of a three part closed question. The construction of this question provided for those who had strong opinions or attitudes to express themselves by choosing a polarized category such as 'too far' and 'too close' (distance questions), 'too much' and 'too little' (inter-site screening questions), and 'too noisy' and 'too quiet' (campground noise question). A third central category of 'just right' was employed in all these questions for those who were satisfied with the situation. This three part closed question separates those who are strongly opinionated from those who are satisfied in an attempt to isolate critical elements in the campground environment which provide satisfaction or dissatisfaction to the campers.

Camping satisfaction, the dependent variable, was measured through the use of the following open ended question, "Could you tell me how you feel about your stay at this campground?" All the adjectival responses to the question were recorded. If the responses were phrased using superlatives such as 'excellent', 'very good', or ' most happy', the respondent could be said to have had a very satisfying stay. Responses which were weakly positive or neutral such as 'okay', 'nice', or 'not bad' were considered to be a reflection of a neutral affect towards the particular camping experience. Responses which employed negatives indicated the camper was dissatisfied with his stay.

b) Question Wording

There are two problems which can arise in the wording of questions: 1) improper wording may lead to biased responses, or 2) the question may not be understood. The realization of these problems and their causes is the best defense against questions which are unreliable or invalid.

Biasing responses by question wording is usually the result of 'loading a question' or cuing the respondent to make a response. Ferman and Levin (1975, p. 46) state that the respondent should not feel coerced into responding in a given way. This type of bias has a profound effect on the validity of the entire study.

Question wording is extremely important if one is dealing with a cross-section of people in society. In devising questions for respondents of widely varied social and educational backgrounds the wording must be put so that they can be clearly understood by all who answer, without sounding patronizing. To achieve this all possible ambiguity must be removed so that each respondent is answering the same question (Phillips, 1966, p. 119). In summary, one may say that a question is properly worded if the answers tell us what we want to know (Burton and Cherry, 1970, p. 56).

c) Question Order

Question order is basically a common sense procedure but in the final compilation of the questionnaire (Appendix A) the following guidelines were followed:

1) General questions precede the more specific questions. Questions #1 through #6 are general introductory questions on the campground and the site

where the interview is taking place. Questions #7 through #9 are more specific, dealing with the respondent's past camping experience. Questions #10 through #12 are related to specific elements in the campground environment. Questions #13 through #19 are profile data questions. Question #20 is perhaps the most important one on the questionnaire as it measures the dependent variable, camping satisfaction. It was separated from the main body of the questionnaire by the profile questions so as to disassociate the respondent from the site specific questions which may have been a possible cue for answering this question. The remaining two pages of the questionnaire are for the recording of site measurements.

2) Question sequence should follow a logical order. As illustrated above, the questions follow a logical progression from general to more specific issues while not asking the respondent to make radical changes in topic.

3) Questions of a sensitive nature should be left until the end of the questionnaire. There are some questions (here it is the profile data questions) about which the respondent may feel 'touchy' and less likely to answer. This can be combatted, as it was here, by placing these questions near the end of the questionnaire. This means the respondent is already deeply involved in the interview and the subject matter being discussed and therefore will be more likely to answer these somewhat 'difficult' questions. During the actual interviewing many campers questioned the relevance of these questions to the study. A few words on their importance to the study usually allayed these misgivings. In total, there were only 14 refusals to answer one or more or these questions.

d) The Pre-test

The value of pre-testing the questionnaire is in the pre-test's ability to test the actual wording of questions (Burton and Cherry, 1970, p. 56). Due to limitations of time and access to actual camping situations it was necessary to pre-test the questionnaire on university students. The pre-test, while limited, led to a number of modifications in question order and question format.

For purposes of clarification it was found that small lead-in sentences, especially before question #10, allowed the interview to flow smoothly, and did not necessitate changing the questions themselves.

One question had to be modified early in the field work. Question #15 asked, "Would you mind telling me your age?" After one week of interviewing it was evident that the refusal rate to this question by women in the 35-50 age group (approximately) was going to be very high. A subtle change in wording to, "Would you mind telling me the year you were born in?" raised the response rate back to 100%.

D. Non-interview Methodology

To this point this chapter has focused solely on the development of a methodological framework for interviewing campers. There is a second segment to the study which involves the gathering of objective data, through three different measurement techniques, in an attempt to generate data on the actual campground environment. In the interview, the respondent is asked his perceptions of the distance from his site to various facilities in the campground, as well as his perceptions of inter-site screening and noise. Measurements were taken of the actual distances, actual screening, and actual noise level to compare with the campers' perceptions. It was hoped that this comparison would indicate what actual measurement corresponded to the respondent's perceived response to a given question.

a) Distance Measurement Methodology

Each site interviewed was recorded so that distance and screening measurements could be done for that site as soon as it was unoccupied. Distance measurements were done in the afternoon from 1:00 p.m. to 4:00 p.m., as the campground was at its lowest occupancy at this time. Measurements were not done on weekends as the campgrounds were usually full to capacity and it was difficult to carry out site measurements without invading the privacy of the campers.

The measurements taken consisted of the distance from the site to those immediately to its right and left, to the washroom facility, the water tap, and firewood supply.

All measurements began at a common point, that being the firepit. This was chosen for two reasons: 1) the firepit is the focal point of activity on the campsite (Hendee and Campbell, 1969, p. 2), and 2) in random campgrounds firepits are often the only artifact which designates where the site is.

All measurements were taken with a cloth tape (34.48 meters long). When measuring inter-site distances the line of measurement was as straight as possible between the two firepits. Measurements to the other facilities followed existing activity paths as closely as possible. These paths, worn in the understory vegetation, represent paths of least effort to the facility and had a great influence on the camper's perception of the distance to be travelled. However, if no activity paths existed, measurements were taken along the shortest road route to the facility concerned.

At Aspen Beach the measuring of distance was impossible due to the random nature of the camping done there. Aspen Beach offers camping on a sand beach environment and therefore there are very few designated campsites. Due to the ability of campers to park their units anywhere on the beach it was impossible to know exactly where the measurements were to be done as it was impossible to delineate where the adjacent sites were.

b) Screening Measurements

Inter-site screening and screening between the campsite and road measurements were done at the same time as the distance measurements were taken. A modified pallontonometer, developed by Nord and Magill (1963), was employed to gauge the percentage of vegetative screening. The device used was a wooden frame which was divided into nine squares of 10.3 x 10.3 cm. The device was held 35.9 cm in front of the eyes, and the operator estimated the percentage of the middle three boxes which are occupied by vegetation. The figures for the three boxes were averaged to produce a percentage of screening.

These measurements were taken from the firepit, first looking to the adjacent sites to the left and right, and secondly to the nearest access road. The road measurement was taken by viewing the shortest distance between the site and the road.

c) Noise

Noise measurements were taken with a decibel reader immediately following the conclusion of the interview. It was thought that noise, as Dailey and Redman (1975) point out, may have an important effect on satisfaction in campgrounds. During the course of the interviewing it became increasingly clear that those complaining of noise problems were not distressed by the noise level recorded on-site after the interview. Rather, the annoyance came from two sources which were impossible to monitor by one person. Most important was the noise at night caused by excessive partying in the campground. It is unknown whether this noise is louder than those levels recorded during the day. However, night noise was perceived differently by those trying to sleep, or trying to put children to sleep, and was therefore considered a nuisance. Second, noise, by its definition (U.S. Department of Transport, 1972), is irregular and therefore difficult to record with one reading after an interview. The respondent may be perplexed by a motorcycle running past his site at sporadic intervals, but unless the noise reading is taken at the time an incident occurs there is no way to accurately match that respondent's perception of the noise to on-site conditions.

Other information, such as weather conditions, camping equipment used by the respondent, and sex were all recorded after the interview on a check list (pages 7 and 8 of the questionnaire, Appendix A).

E. The Sample

Sampling is defined as the selection of part of an aggregate of material to represent the whole aggregate (Burton and Cherry, 1970, p. 95). In this study the total population being studied were campers in Alberta. The problem of developing a sampling frame for use here was that it must, first, take into consideration the large areal extent over which camping takes place in Alberta, and secondly, it must be amenable to the on-site interviewing technique.

One sampling technique which does fit these two criteria is the multi-stage sample. The multi-stage sample is comprised of a number of first stage sampling units, each of which are made up of a number of smaller second stage units, and so on (Burton and Cherry, 1970, p. 98). Here, the first stage sampling unit was the different management agencies which supply camping facilities in Alberta. The second stage sampling unit was comprised of the different campgrounds under the chosen agency's jurisdiction, while the third stage units were the individual campers in the chosen campgrounds. This technique permits the areal concentration of field work for surveys where the survey's total population is spread over a large area (Burton and Cherry, 1970, p. 98), as it is here. The development and rationale behind the selection of the sample units at all three stages merits further detailed examination.

a) The First Stage Sample

There are four government agencies involved in providing public camping facilities in Alberta. Therefore, the selection of the first stage sample had to be drawn from one of the following agencies:

1) Alberta Provincial Parks
2) National Parks Service

3) Alberta Forestry Service

4) Alberta Department of Highways

Alberta Provincial Parks gave permission for this study to be conducted in their parks. Provincial Parks were chosen for the first stage sample unit through a rationalization which eventually removed the other three agencies from consideration.

The Alberta Department of Highways is primarily involved in providing overnight camping opportunities rather than extended stay camping facilities upon which the major hypotheses of this study are based. The Alberta Forestry Service provides natural style, car oriented campgrounds located on firefighting access roads in the province. This study was interested in campgrounds which are of easier access than the forestry campgrounds which are located on gravel roads, remote from major population centers. National Parks campgrounds had all the qualifications necessary for the study but it was impossible to obtain a work permit for the June to September field season and consequently had to be dropped from consideration. In June 1976 a working arrangement was struck with Alberta Provincial Parks, thereby completing stage one in the multi-stage sampling process.

b) The Second Stage Sample

In the second stage sample, specific campgrounds to be studied were chosen. These campgrounds had to meet specific parameters which allowed for testing of the major hypothesis, as well as many lower level interactions identified in Chapter 2. These parameters will be listed in order of specificity from those which affect all the campgrounds chosen to parameters which influenced the selection of a single campground.

i) Forest Oriented Camping

The term forest oriented camping here refers to camping carried out in forest oriented campgrounds as opposed to camping done in open prairie environments. Campgrounds located in forested regions (should) have a lateral screening component which is inherent (to some degree) in their design which affects the individual camper's perception of distance. Campers have different expectations vis-à-vis both forested and prairie campgrounds based on the experience they expect to obtain there, with the basis for this difference being the vastly dissimilar camping environments. It would strain the validity of this study to group together the perceptions of campers in these two different environments for the purpose of making general statements on camping satisfaction as these perceptions are, in all likelihood, based upon a different set of expectations. As a result only campgrounds from forested regions of Alberta were included in the sample.

ii) Type of Development

In the Alberta Provincial Parks system there are two means by which facilities can be categorized: 1) by the age of the facility, and 2) by the type of services offered. Age of the facility has a very real effect on the type of camping experience offered. Those campgrounds constructed before 1967 (approximately) are characterized by a random style of camping which is the result of there being little, if any, identification of individual sites in the campground. This affords the campers an opportunity to park their units almost wherever they wish. Campgrounds developed more recently (post 1970) are based upon newer design principles and incorporate such features as individual sites (either back-in or pull-through), and activity pads on each site. Individual stalls, aided in some instances by barrier systems, do not allow campers to locate their units wherever they desire, thereby removing the element of randomness evident in the older facilities. Both types of campgrounds were included in the sample so that variations in satisfaction, between older and newer campgrounds, could be identified as being directly related to the facility offered to those campers using the facilities.

As was mentioned in Chapter 1, camping facilities have been grouped into typologies which are based upon the camping experience offered. In most instances, the type of experience offered is directly related to the intensity of development in a given campground. Alberta Provincial Parks campgrounds can also be broken down into two rough categories based on intensity of development: 1) intensive or socially oriented campgrounds which offer the camper a higher level of development and a socially oriented camping experience, and 2) natural, car oriented campgrounds, which have more of an environmental orientation than the intensive campground and consequently offer a lower order of facilities.

The sample included three totally random campgrounds, Aspen Beach, Beauvais Lake, and Williamson, and three totally non-random campgrounds, Pigeon Lake, Jarvis Bay and Chain Lakes, with one campground, Moonshine Lake, having elements of both styles of campground. Of these campgrounds four of the campgrounds could have been considered intensive developments: they were, Pigeon Lake, Jarvis Bay, Aspen Beach, and Chain Lakes. The remaining campgrounds, Beauvais Lake, Williamson and Moonshine, could all be classified as natural campgrounds.

iii) Locational Differences

So as not to bias the sample heavily towards one location of the camping population of Alberta, campgrounds in three regions of the province were included in the sample. Three campgrounds were located approximately equidistance from Edmonton and Calgary, two were located in the Peace Region, and the final two were situated in the foothills area south of Calgary (see Fig. 3.1). The mixed locations of the campgrounds ensures, to some extent, that the results obtained are not the product of interviewing campers from just Edmonton and Calgary; rather, it provides a check by which one can see if differences in camping preferences exist in divergent areas of the province.

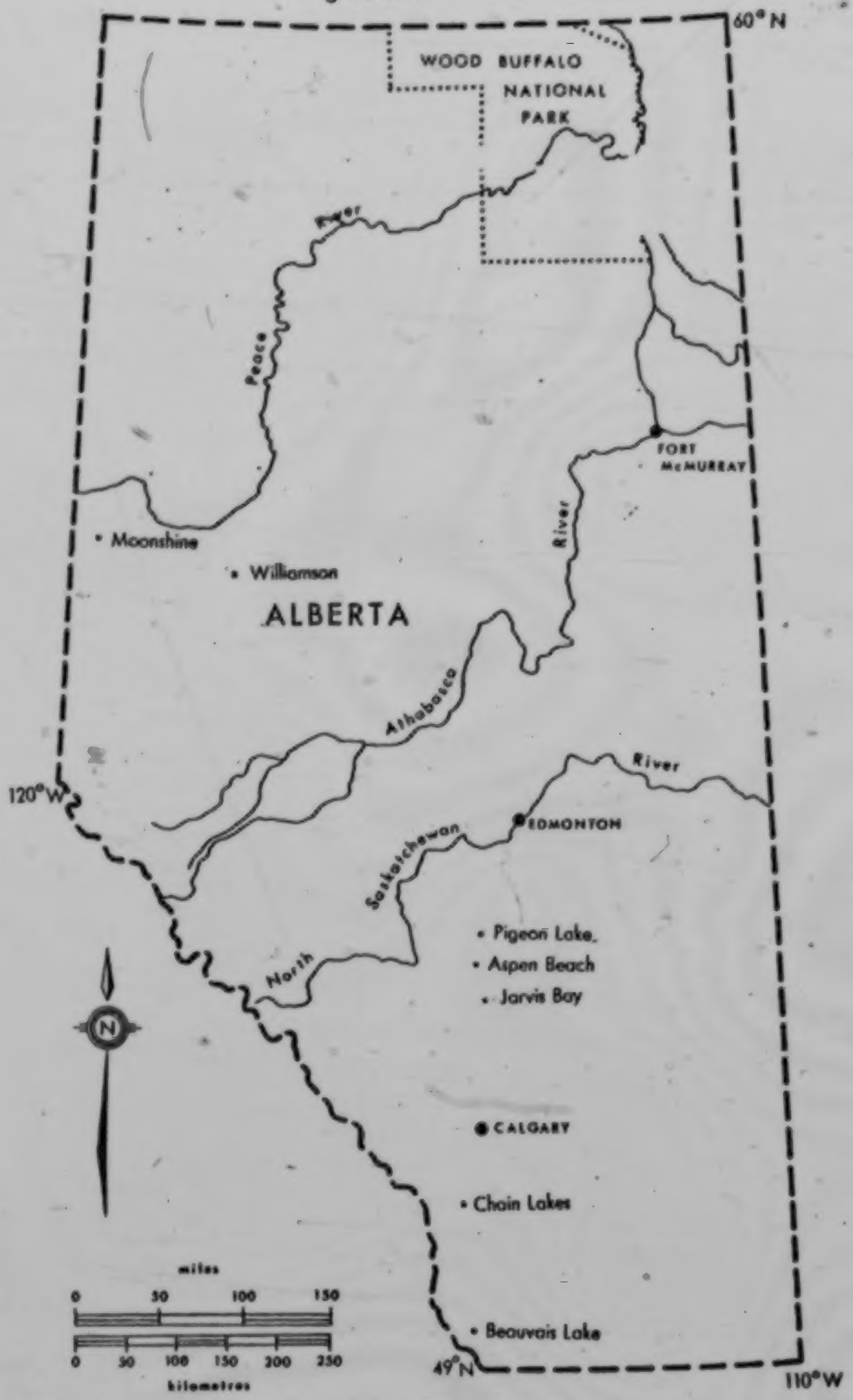
c) The Third Stage Sample

The population from which the sample was drawn were the campers in the campgrounds, selected in stage two, during the week interviewing was being conducted in a given campground. Respondents were chosen at random by the interviewer while walking through the campground. The only constraint on respondent selection was that campers who were engaged in cooking or eating were not approached. Only campers who were outside their camping unit were approached. The interviewer made two complete circuits of the campground per day, ensuring that every site was passed an equal number of times, thereby giving each site an equal opportunity of having an interview conducted there.

Interviewing was conducted three times per day, first in the morning from 930 to 1200, second from 1400 to 1600, and third from 1900 until dark. This interviewing schedule was devised to make allowances for customary eating hours when the potential respondents were unavailable.

LOCATION OF SURVEYED CAMPGROUNDS

Figure 3.1


60° N
WOOD BUFFALO
NATIONAL
PARK
Peace River
FORT
McMURRAY
River
Moonshine
Williamson
ALBERTA
Athabasca
River
EDMONTON
North Saskatchewan
120°W
Pigeon Lake
Aspen Beach
Jarvis Bay
N
CALGARY
Chain Lakes
miles
0 50 100 150
0 50 100 150 200 250
kilometres
Beauvais Lake
49°N
110°W

In some instances it was necessary to terminate some interviews shortly after they began when it was learned that the respondent had only been in the campground a short time and was not yet familiar with the campground. In such cases the respondent was re-approached the following morning and an interview completed. With this exception, no camper was interviewed more than once.

Field work, consisting of interviews and on-site measurements, was conducted during the height of the camping season from late June to the Labour Day weekend in September. As it was necessary to include seven campgrounds in the sample, one week was spent in each campground. It was necessary to include seven campgrounds to cover the sampling requirements mentioned earlier (locational differences, development differences). Due to the seven week field season, this allowed for spending only one week in each campground. The following timetable was followed:

1) Pigeon Lake - June 26 to July 1 and September 4
2) Jarvis Bay - July 3 to July 8
3) Moonshine - July 10 to July 15
4) Williamson - July 16 to July 22
5) Aspen Beach - July 30 to August 4 and August 14
6) Beauvais Lake - August 20 to August 27
7) Chain Lake - August 28 to September 1

This timetable allowed for the inclusion of three long weekends, July 1st, August 1st, and Labour Day in the sample. This was vital as the three long weekends account for 33% of all summer weekends. It is possible that, due to the social orientation of long weekends, the type of campers found in the parks could differ from the norm for the rest of the summer. Final compilation of data shows that 27.6% of the interviews were conducted on holiday weekends. The schedule was also of logistic importance as it kept down the number of travel miles necessary to complete the study to 3,000.

Interviewing was conducted for six days in all parks but Chain Lakes where only five days of interviews were carried out. So as not to miss the weekend interviewing the moving of the field camp to a new campground was done on Fridays. An average of 12 interviews per day were attempted, or approximately 70 per week. The actual number of interviews in each park varied; the actual number of interviews per campground are listed in Table 3.1.

TABLE 3.1

Number of Interviews Conducted at Each Campground

Campground	Number of Interviews
Pigeon Lake	68
Jarvis Bay	72
Moonshine Lake	64
Williamson	66
Aspen Beach	86
Chain Lakes	41
Beauvais Lake	41
Total	438

F. Data Preparation and Manipulation

a) Coding

With the conclusion of interviewing on Saturday, September 4, 1976, 438 interviews had been conducted. The next stage in data preparation was the developing of a coding manual for the purpose of setting up the data in a form amenable to computer analysis.

The most difficult component of this manual involved the coding of the open-ended questions. Questions #3 through #6, #10(a) and #11(a) were all coded in the following manner. First, the entire range of responses for a given question was recorded. Second, responses which were the same, or had a common theme were grouped together. These groupings were re-examined to see if further breakdown was possible. When the groupings were decided each group was given a specific number for the purposes of computer analysis.

To ensure internal consistency in the coding operation, all coding work was done by the author. All data were punched and electronically verified by professional keypunchers with the University of Alberta Computer Services Department.

b) Data Manipulation

All data were first subjected to a simple frequency analysis using the S.P.S.S. packaged program (Nie et al., 1975). Further analysis, based on the use of cross-tabulations and breakdown analysis subprograms from S.P.S.S., was based upon the elaboration model put forward by Rosenburg (Rosenburg, 1968, p. 201).

CHAPTER FOUR

SITE DESCRIPTIONS

A. Introduction

As was previously mentioned in Chapter 3, seven campgrounds were chosen for inclusion in this study based upon the type of facilities offered and the location of the campgrounds. The facilities are listed in Table 4.1, which shows a breakdown of the facilities offered at each campground.

B. The Alberta Provincial Parks

The Alberta Provincial Parks System had its beginning on May 15, 1932 with the establishment of Aspen Beach Provincial Park (Aspen Beach Park History, 1973, p. 15). However, the system did not receive its official mandate until legislation, giving powers to the Provincial Parks, was passed in March, 1967. It stated,

> The fundamental and important obligation in the administration of parks is to preserve from impairment all significant objects and features of nature in the park and in natural recreational activities in perpetuity. (Provincial Parks Working Paper #13, 1973, p. 2).

C.H. Harvie, the head of Alberta Provincial Parks in 1968 stated that park development in Alberta was aimed at providing family recreational opportunities; namely bathing beaches, camping and picnic areas, and

TABLE 4.1

FACILITIES OFFERED AT THE SURVEYED CAMPGROUNDS

Campground	Total # of Campsites	Toilets		Showers	Water		Shelters	Fishing	Swimming	Hiking Trails	Playground	Boat Launch.	Sewage Dumping
		Dry	Flush		Well	Tap							
Pigeon Lake	173	-	15	.	-	26	-	.	.	-	-	.	.
Jarvis Bay	140	-	15	.	-	9	-	.	-	7	-	-	.
Moonshine Lake	100	20	-	-	1	7	2	.	.	-	.	.	.
Williamson	80	13	-	-	-	4	-	.	.	-	.	.	.
Chain Lakes	140	26	-	-	4	1	2	.	-	-	-	.	.
Aspen Beach	350	15	6	-	6	-	7	.	.	-	.	-	.
Beauvais Lake	55	15	-	-	4	-	2	.	.	-	.	-	-

Source: Travel Alberta, "1975 Vacation Guide"

. indicates availability of facility

where possible boating and fishing. The principal objective of site improvement is to achieve a comfortable blend of essential development and the natural environment (Harvie, 1968, p. 462-463).

The Alberta Parks system has expanded and now includes 47 parks (Travel Alberta, 1975, p. 60-61) which have a total area over 728,744 hectares in size.

C. Site Descriptions

a) Pigeon Lake Campground

Pigeon Lake Provincial Park is located 105 kilometers southeast of Edmonton (see Fig. 3.1), in the mixed farming region west of Wetaskiwin (Pigeon Lake Park History, 1973, p. 1). Situated on Pigeon Lake, this campground has access to one of the few good recreational bodies of water in central Alberta. The lake is 17.74 kilometers long and up to 8 kilometers wide, with a shoreline totalling 41.9 kilometers in length (Pigeon Lake Park History, 1973, p. 1). The lake is well suited to such recreational activities as swimming, boating, waterskiing and fishing.

In 1970 the 187.45 hectares for the park was purchased from a local resident. Construction of the camping and day use facilities was completed in 1973 and the park was officially opened on August 16, 1973.

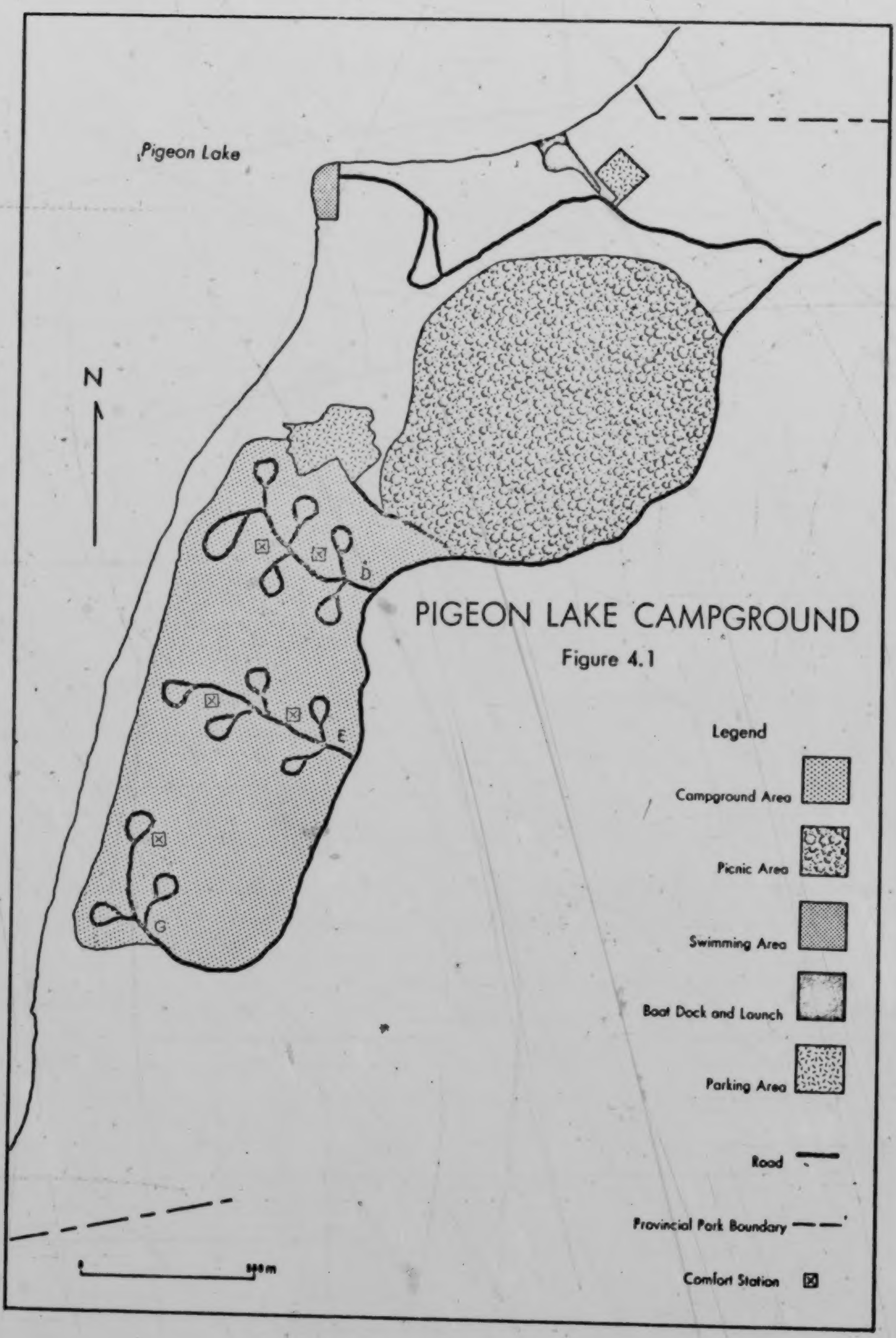
Facilities within the park include 173 camping units for both trailers and tents, with 48 units set aside for tenting only (Travel Alberta, 1975, p. 61). The campground is located in a young stand of aspen with a heavy understory of wild rose, fireweed, and cow parsnip to name a few species.

The campground is equipped with comfort stations which include hot and cold running water, showers and flush toilets. Water is supplied to the campground through a pressure system to 26 taps, 2 located in each loop. Firewood is located in a large bin at the entrance to each loop. Day use facilities include picnic sites with tables and fireplaces, a beach (located approximately 0.8 kilometers from the campground), boat launch, docking facilities, public telephone, and sewage dump.

The park has a major two way road which runs to the west of the lake and provides access to all areas of the park (see Fig. 4.1). The campground is divided into three main camping areas referred to as D, E, and G sections (A, B, and C are picnic areas and F is the tent area). Each of the campground sections has a major two way road running east from the main park road towards the lake. This two way road provides access to individual loops which contain approximately 10 sites each. Traffic flow within each of the loops is one way. D section contains six of these loops, E contains five, while G has only three.

b) Jarvis Bay

Jarvis Bay Provincial Park is located on highway 20 approximately 3.22 kilometers north and 32.2 kilometers west of Red Deer on Sylvan Lake (Jarvis Bay Park History, 1973, p. 1). Due to the location of the park on the east shore of Sylvan Lake, wave erosion and spring ice jams prevent the development of swimming and boating facilities here. However, these water based recreational opportunities are available two miles away at the town of Sylvan Lake.



PIGEON LAKE CAMPGROUND

Figure 4.1

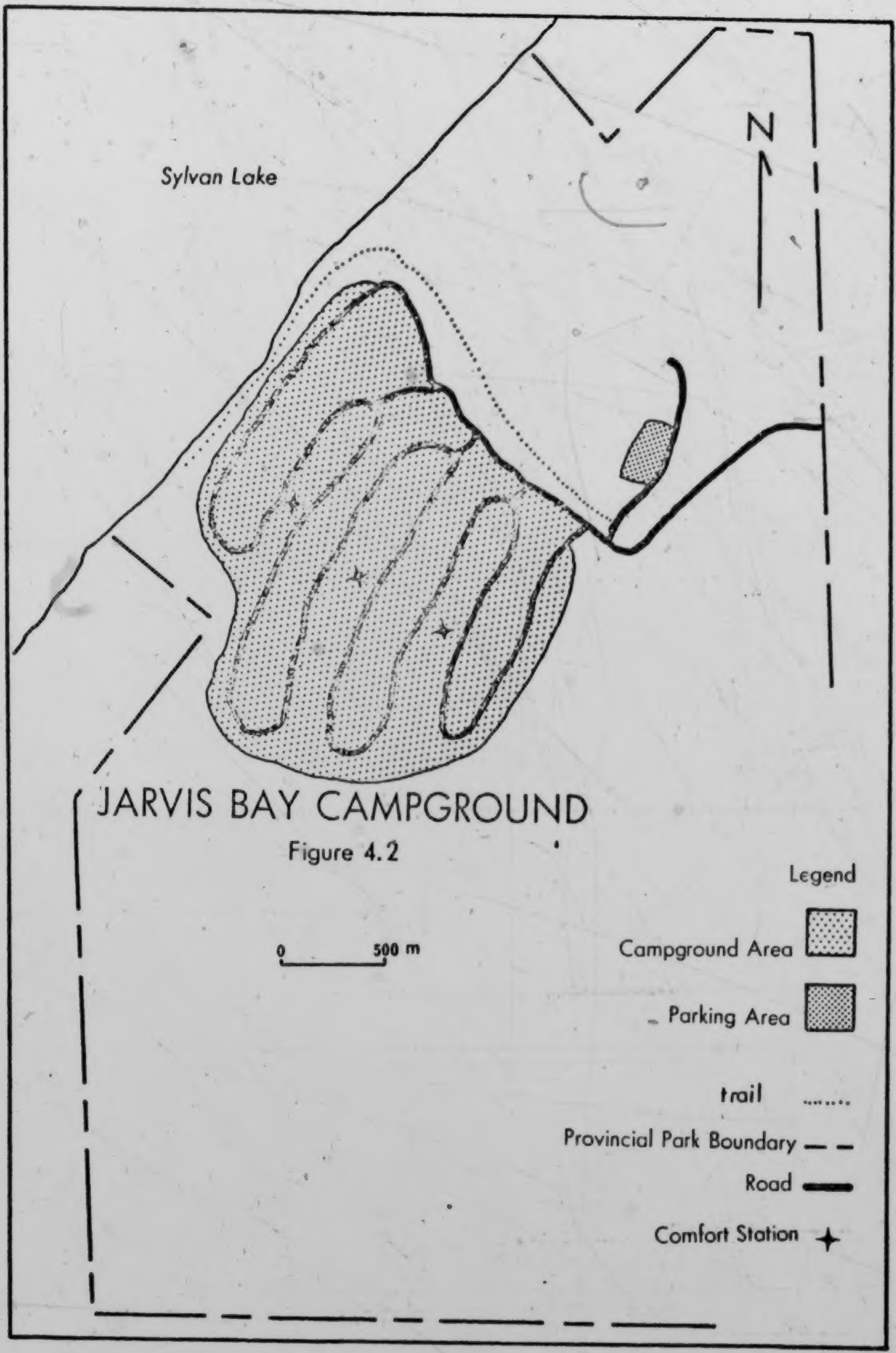
Pigeon Lake
N
D
E
G
Legend
Campground Area
Picnic Area
Swimming Area
Boat Dock and Launch
Parking Area
Road
Provincial Park Boundary
Comfort Station ☒
0

The camping facility, located in a mature stand of balsam poplar with a dense understory of various species of willow, wild rose, and dogwood is laid out in extended loops (see Fig. 4.2) running from a major two way campground road, which in turn runs from the park entrance, southwest towards the lake. Off the main road to the south are the four extended loops, all connected by the same one way road. The campground has a total of 140 sites, all of which are back-in stalls.

The campground is served by three comfort stations, one to each large loop. These comfort stations contain hot and cold running water, and four flush toilets (pump out). Two water taps and one firewood bin are accessible to each road (see Fig. 4.2). There are showers available for the campers but these are located outside the camping area near the park workshop. The location of the shower away from the camping area was necessitated due to the impossibility of locating an adequate leaching field in the camping area to handle the amount of effluent put out by the shower building.

c) Chain Lakes

Chain Lakes Provincial Park is located 41.9 kilometers southwest of Nanton, in the heart of southern Alberta's ranching country. The park was established in 1968 in response to requests by local ranchers for a recreation facility on the Chain Lakes Reservoir. With the establishment of the reservoir and its subsequent stocking with trout in 1965, the ranchers had been having difficulties with trespassing fishermen leaving gates open, and leaving litter and unextinguished fires on the



JARVIS BAY CAMPGROUND

Figure 4.2

Sylvan Lake
N
0
500 m
Legend
Campground Area
Parking Area
trail
Provincial Park Boundary
Road
Comfort Station

land adjacent to the reservoir (Chain Lakes Park History, 1973, p. 6). To resolve this land use conflict, Provincial Parks purchased 118.11 hectares (291.75 acres) on the southeast side of the reservoir on which to develop a camping facility to contain, and thereby control, the recreational use of the reservoir.

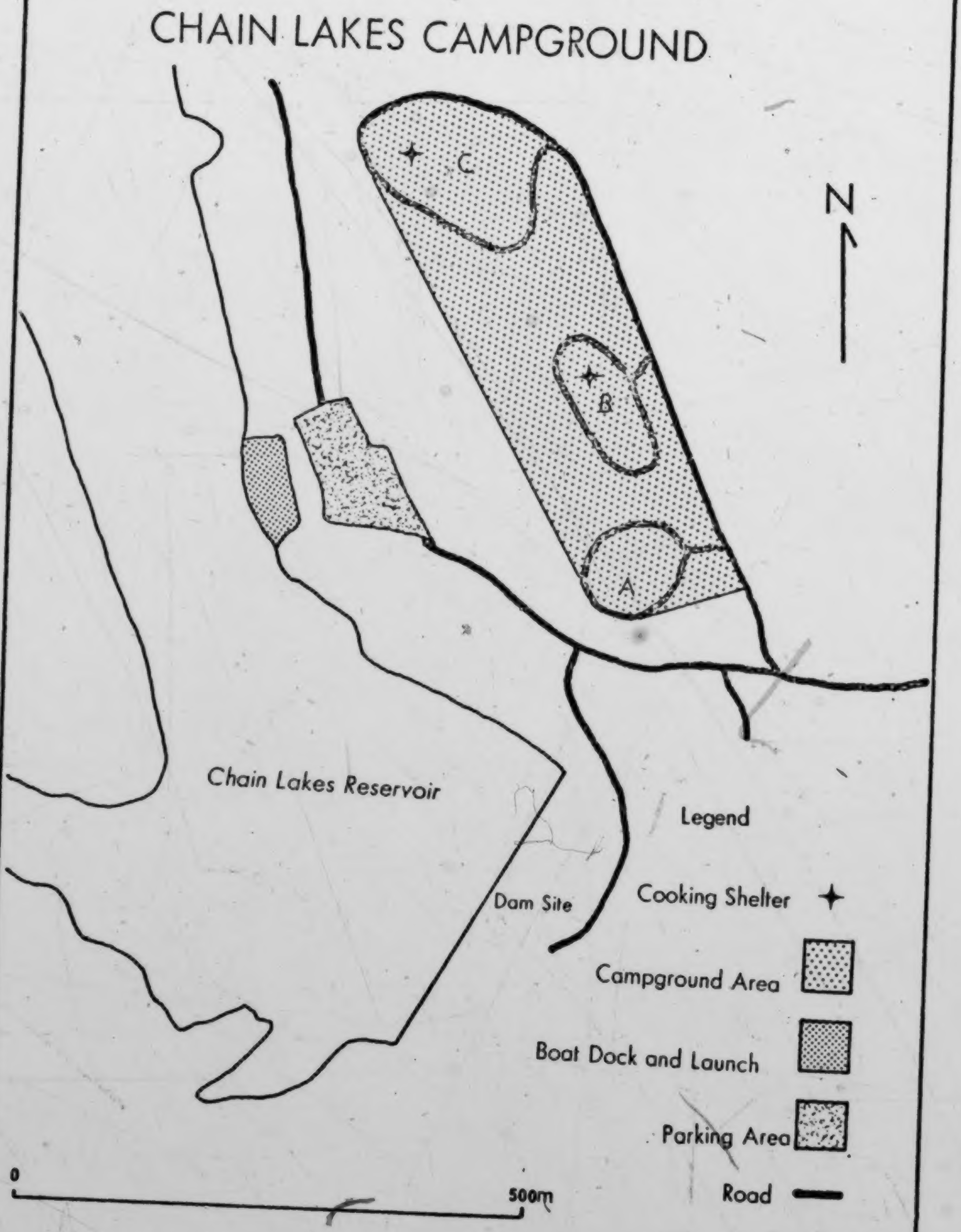
Construction of the facilities began in August, 1969 and included the development of three camping loops (see Fig. 4.3) containing 140 sites, day use parking lot, boat launch and cooking shelters. Other campground amenities included 26 dry pit toilets, and four hand operated water pumps.

The predominant vegetative cover in the park is willow which provides dense screening between most sites. Due, in part, to the highly flammable nature of willow and the high cost of transporting firewood to the park no fires are allowed in the campground. As a substitute, two large gas burning cooking shelters have been provided for the campers.

d) Moonshine Lake

Moonshine Lake Provincial Park is situated on Moonshine Lake, 24.19 kilometers west and 11.29 kilometers north of Spirit River in Alberta's Peace region. This park, which now includes 782.19 hectares was established in April, 1959. To enhance the quality of the park, Moonshine Lake, formerly a large slough, was dammed in 1959 to increase its size from 14.7 hectares to 32.39 hectares and increase its maximum depth of 4.27 meters (Moonshine Lake Park History, 1973, p. 6). In 1968 the water level was lowered and the lake was treated with rotenone to kill off the

Figure 4.3


CHAIN LAKES CAMPGROUND
N
C
B
A
Chain Lakes Reservoir
Dam Site
Legend
Cooking Shelter ✦
Campground Area
Boat Dock and Launch
Parking Area
Road
0
500m

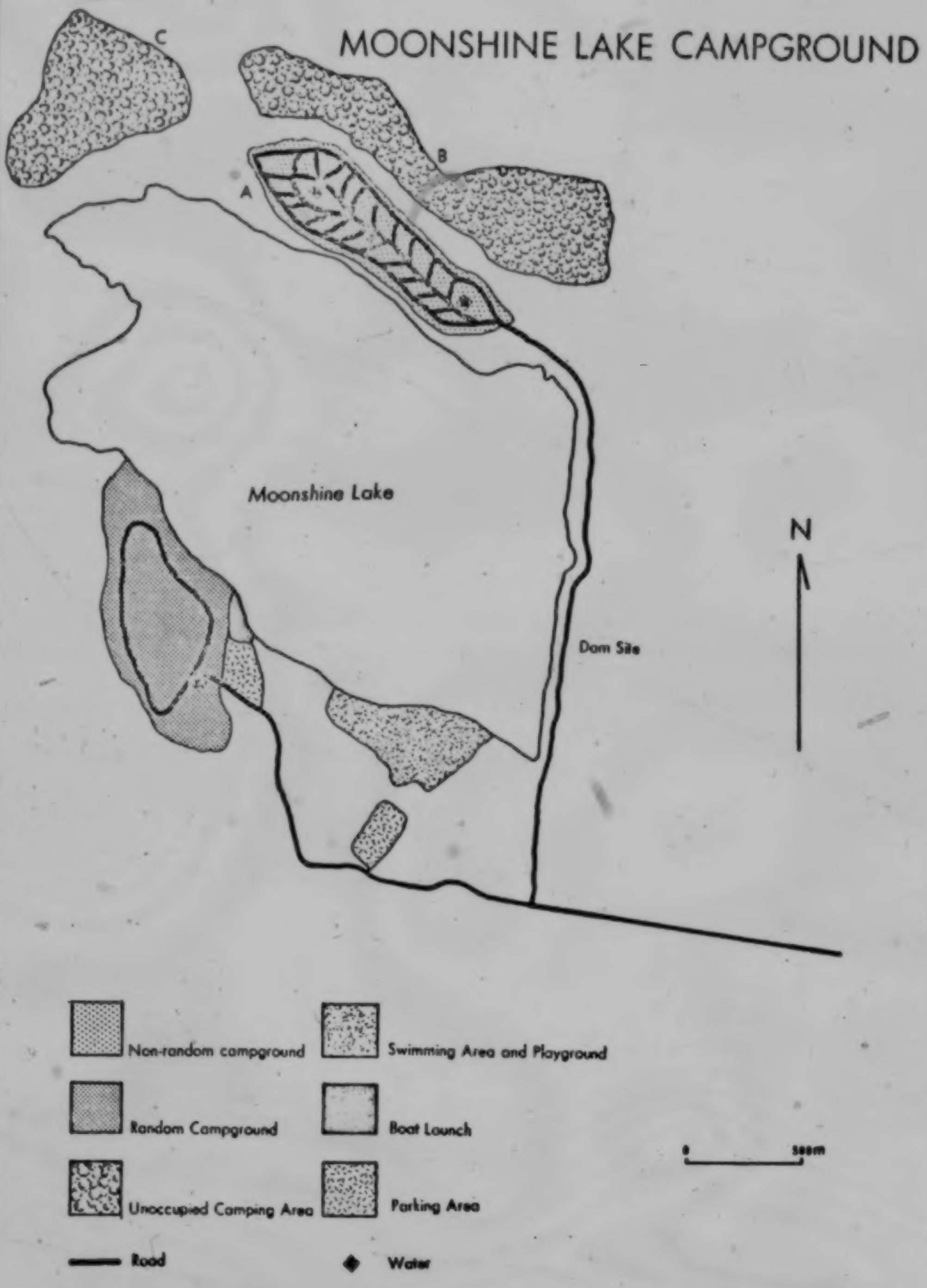
'rough fish' (i.e., pike) and in 1970 80,000 rainbow trout were planted (Moonshine Lake Park History, 1973, p. 8). As a result fishing is now extremely popular with the Park's patrons. The lake is also used for swimming; however, due to its restricted size no motor powered boats are allowed on the lake.

Moonshine's camping facilities were in a transition period during the summer of 1976 as new camping facilities were being opened to the public. The campground on the southside of the lake (see Fig. 4.4) was opened in 1961 and has been heavily used over the past fifteen years, which has consequently resulted in the complete removal of the understory vegetation and has damaged many trees. This southside camping area offers a random style of camping with campsites being designated by the location of fireboxes and picnic tables only. The declining condition of the southside camping area resulted in the Provincial Parks beginning construction on a new campground on the north side of the lake.

The northside camping area contains three distinct sections A, B, and C with A and B being pull-through design, and C back-in. At the time when field work was conducted only A section was open to the public, while sections B and C were expected to open before the end of the season. It is anticipated that when the northside camping area is fully operational the southside area will be closed for rehabilitation and later reopened as a picnic day use area.

Facilities offered the campers include 20 dry pit toilets, 7 water taps, of which only one serves the southside camping area. Firewood is

Figure 4.4


MOONSHINE LAKE CAMPGROUND
C
B
A
Moonshine Lake
N
Dam Site
Non-random campground
Swimming Area and Playground
Random Campground
Boat Launch
Unoccupied Camping Area
Parking Area
Road
Water
0
500m

also available for the campers. Playgrounds, picnic shelters and other day use facilities are provided at the southside location.

e) Williamson

Williamson Provincial Park, established in November, 1960, is located 17.74 kilometers west of Valleyview and 370.96 kilometers north of Edmonton in Alberta's Peace Country (Williamson Park History, 1973, p. 1). Situated on Sturgeon Lake, one of the few good recreational lakes in the Peace region, it offers opportunities for participating in such activities as swimming, waterskiing and fishing.

The park, which is only 17.41 hectares in size (Travel Alberta, 1975, p. 61), has a thick overstory of white spruce, aspen, balsam poplar, and paper birch and in areas where development has not taken place a thick understory remains (Williamson Park History, 1973, p. 2). The park contains a campground of 80 sites of which 39 are back-in and 41 are pull-through stalls (see Fig. 4.5). In the campground approximately 95% of the understory vegetation has been removed, therefore most of the intersite screening in this campground is provided by the trunks and low hanging branches of trees.

Williamson's campground is serviced with 15 dry pit toilets and four water taps (Travel Alberta, 1975, p. 61) which are fed by two artesian wells. At the time field work was carried out at Williamson the wells had gone dry leaving the campground without potable water. Other facilities available in the park include a picnic day use area, beach, playground,

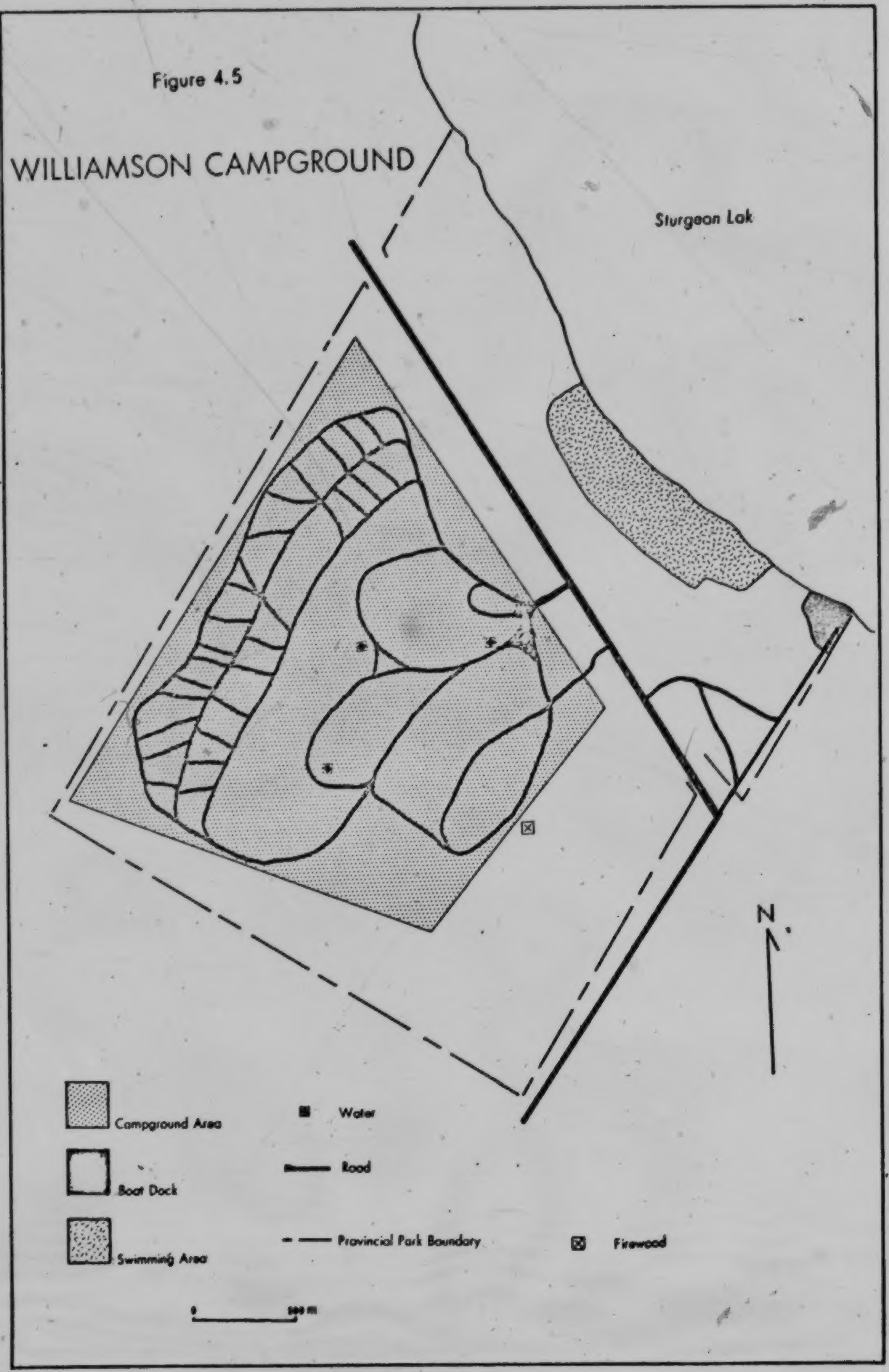


Figure 4.5

WILLIAMSON CAMPGROUND

Sturgeon Lak
N
Campground Area
Water
Boat Dock
Road
Swimming Area
Provincial Park Boundary
Firewood
0

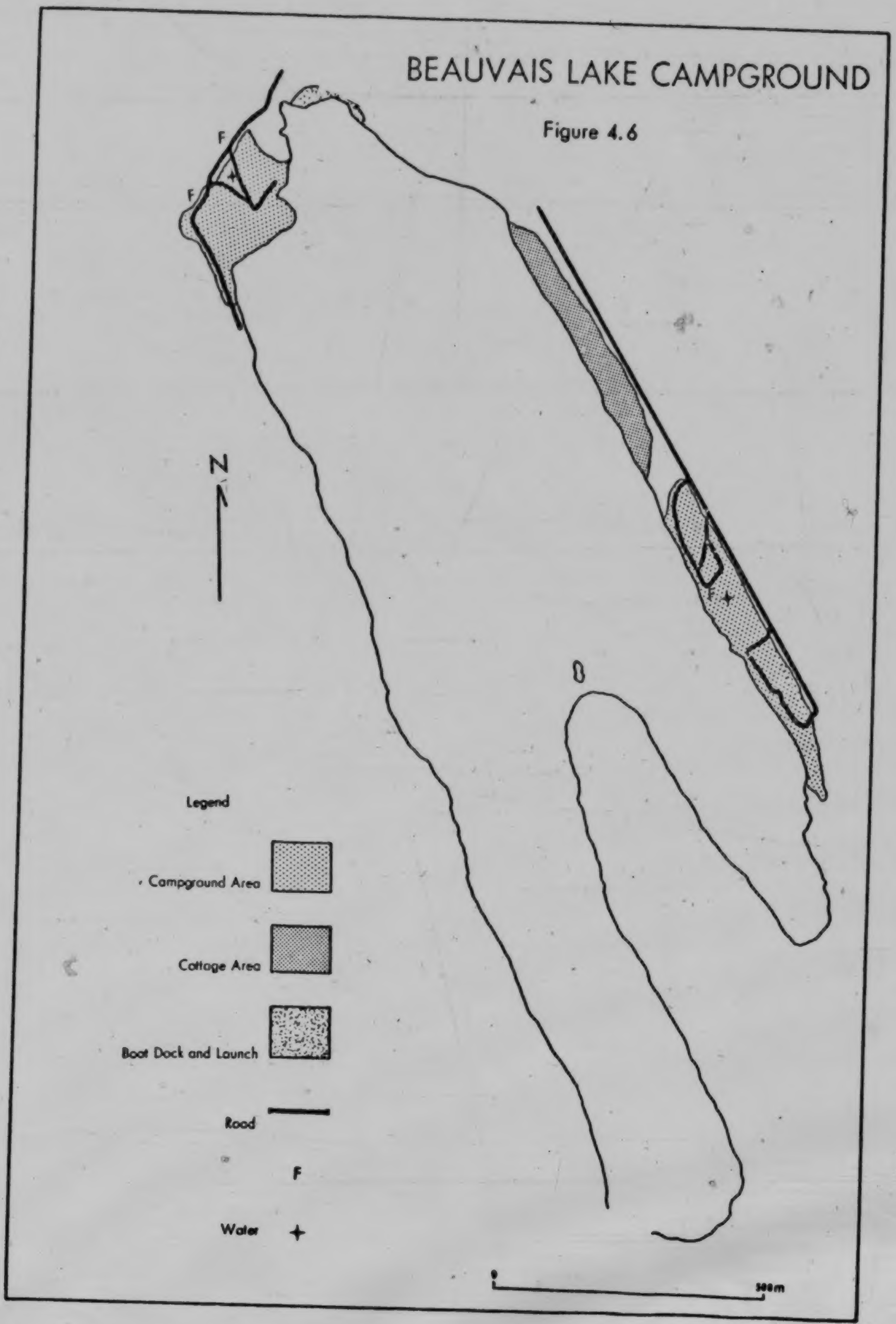
boat launch and docks.

f) Beauvais Lake

Beauvais Lake Provincial Park, located 22.58 kilometers southwest of Pincher Creek, is situated in an area of rapid transition from prairie to foothill to alpine topography (Beauvais Lake Park History, 1972, p. 1). The park's central attraction is Beauvias Lake, a small pothole lake which covers approximately 48 hectares (Beauvais Lake Park History, 1972, p. 1). The lake offers excellent rainbow trout fishing while discouraging swimming due to the cool temperature of the water.

The lake has been used for recreational purposes since the surrounding land was first homesteaded in 1904. However, it was not until the 1940's that the land was reserved for Provincial Park development (Beauvais Lake Park History, 1972, p. 3). A campground was first established at the lake in the late 1950's on the northwest shore with a smaller camping area being added later on the southeast shore (see Fig. 4.6). The northwest camping facility contains 36 of the 55 sites available within the park. All sites are random in nature, being designated only by the location of picnic tables and fireboxes.

Facilities available to the camper include 15 dry pit toilets, 4 hand pump water outlets, playground, hiking trails and ample facilities for boat launching (Travel Alberta, 1975, p. 61) although there is no dock facility near the campground. Fishing in the lake is especially good as all fish indigenous to the lake were killed off with toxophene in 1958, and in each subsequent year 120,000 rainbow trout have been planted (Beauvais Lake Park History, 1972, p. 6).



BEAUVAIS LAKE CAMPGROUND

Figure 4.6

F
F
N
Legend
Campground Area
Cottage Area
Boat Dock and Launch
Road
F
Water
0
300m

g) Aspen Beach

The Alberta Provincial Parks System had its beginning on May 15, 1932 with the establishment of Aspen Beach Park (Aspen Beach Park History, 1972, p. 15). Aspen Beach, located 14.5 kilometers west of Lacombe on Gull Lake, is famous for its large sand beach, one of the few good recreational beaches in Alberta, and the proximity of the camping area to the beach. Swimming, boating, waterskiing and fishing are all popular with the patrons of the park. Currently the water level of Gull Lake has been dropping and is now endangering the quality of the water-based recreational activities carried on here.

The campground is located in a sand area to the southwest of the main beach (see Fig. 4.7). Due to the long history of recreational use of the park area most of the indigenous understory vegetation of willow, red osier, dogwood, and wild rose has been removed (Aspen Beach Park History, 1972, p. 13-14). The sandy camping area and lack of understory vegetation allow camping in the park to take on a very random form. While the campground is listed as having a capacity of 300 - 400 sites (Aspen Beach Park History, 1972, p. 22) unofficial reports place the number of units in the campground on a long weekend at between 2000 - 2500. Photographs 4.1 and 4.2 illustrate how campers locate their units when there are no restrictions to location, as is the case at Aspen Beach.

Facilities provided for the campers include six flush toilets and 15 dry pit toilets, plus one change house for swimmers. Water is supplied by a well through six hand operated pumps. Firewood, though sparse in supply, is available to the camper. However, there is a lack of firepits

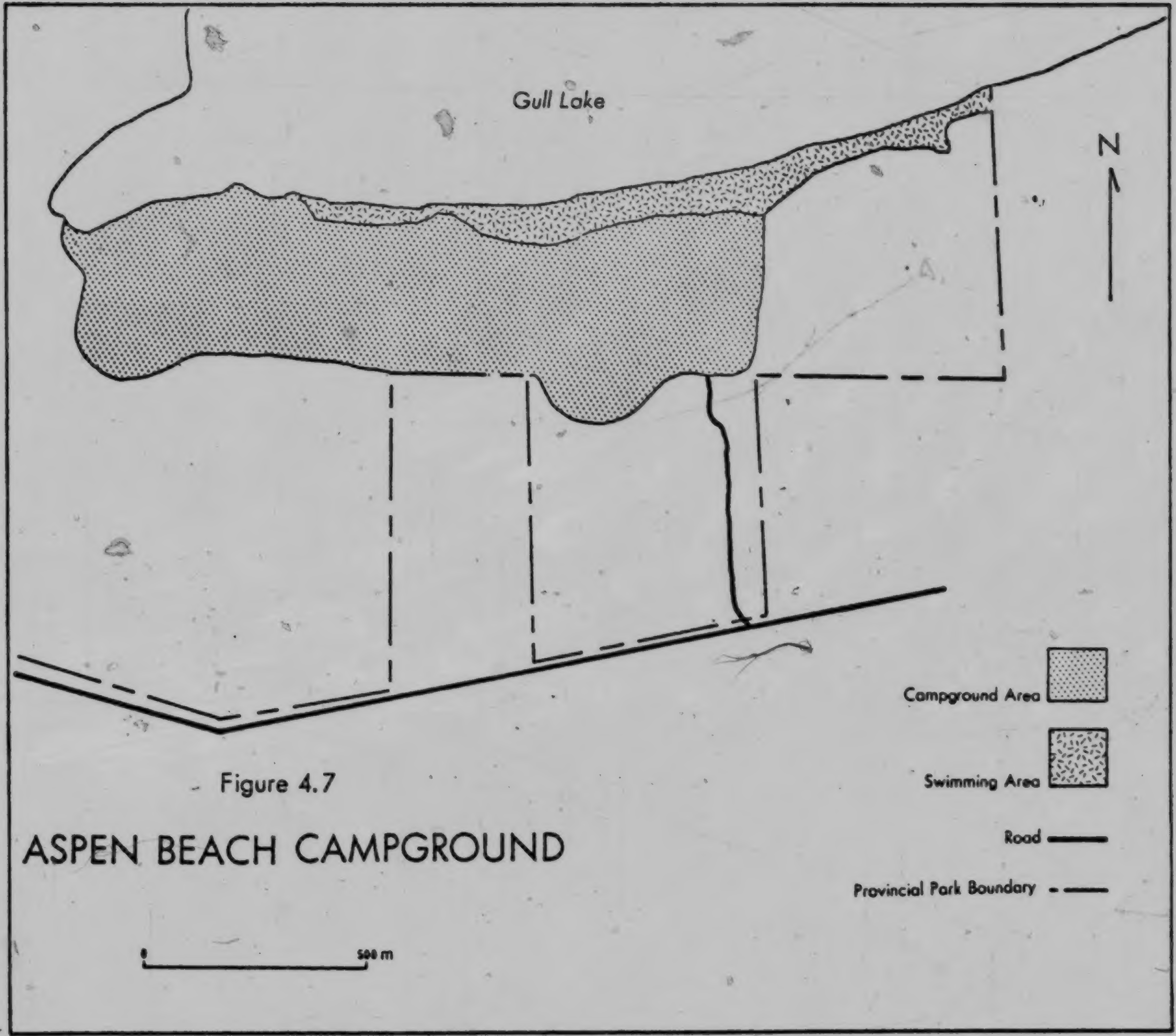

Gull Lake
N
Campground Area
Swimming Area
Road
Provincial Park Boundary
0
500 m

Figure 4.7

ASPEN BEACH CAMPGROUND

Photo 4.1: Crowded Conditions at Aspen Beach

Photo 4.2: Large Grouping of Campers at Aspen Beach

for the number of people using the park and as a result fires are constructed on the ground, sometimes in areas where they constitute a hazard. Playgrounds, dumping stations, boat launch and rentals plus a concession are also available.

D. Random vs. Non-random Campgrounds

As was briefly mentioned in the preceding site descriptions, one major difference exists within these camping facilities. Pigeon Lake, Jarvis Bay, and Chain Lakes are newer campground developments which provide individual back-in or pull-through stalls. Williamson, Beauvais Lake, and Aspen Beach are older campgrounds, and due to their age and resultant overuse, the understory vegetation in these campgrounds has been removed. Moonshine Lake campground contains elements of both the older and newer style campgrounds, with a new development located on the north shore of the lake, while the older development is found on the south side of the lake. For example, photographs 4.3 and 4.4 illustrate the condition of these random campgrounds. This lack of understory vegetation allows campers to locate their units in any open area available (photograph 4.4 illustrates this point with an example from Beauvais Lake. This gives these campgrounds a random appearance with regard to the location of the camping units. In contrast, the newer campgrounds with their individual stalls do not exhibit this randomness of camping unit location and henceforth will be referred to as non-random campgrounds. The differences between these two styles of campground will be dealt with at length in later chapters.

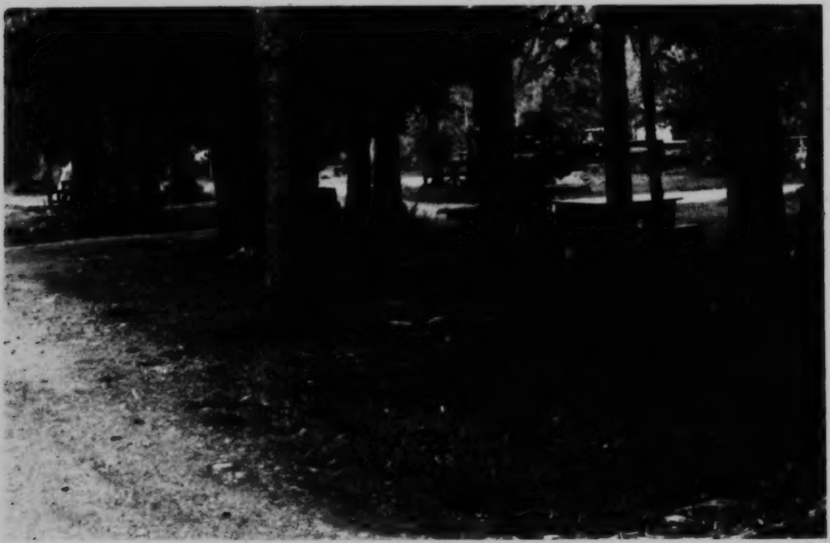


Photo 4.3: Lack of Understory Vegetation at Beauvais Lake

Photo 4.4: A View to the Adjacent Site to the Right, Beauvais Lake

CHAPTER FIVE

VARIATIONS IN SATISFACTION BETWEEN CAMPGROUNDS

A. Introduction

Satisfaction has been illustrated as being a function of the degree of congruency between aspirations and the perceived on-site experience (Bultena and Klessig, 1969, p. 349).[1] One can expect camping satisfaction to vary spatially, or among campgrounds, as aspirations, perceived on-site experience and the actual facility provided will vary from campground to campground and from camper to camper.

All three of the components of satisfaction mentioned above were included in the questionnaire and field measurement data gathering techniques. This chapter examines the variation in satisfaction between the seven sampled campgrounds. The discussion of the dependent variable satisfaction will lay the framework for the analysis of the effect of the camper's aspirations and the camping environment on camping satisfaction (Chapters 6 and 7), and the development of recommendations for campground design alteration and future research methodology (Chapter 8).

Table 5.1 shows the actual variation in satisfaction by campground studied. This indicates that the campgrounds fall into three distinct

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[1] A more complete explanation exists in Chapter 2.

TABLE 5.1

RELATIONSHIP BETWEEN THE SURVEYED CAMPGROUNDS AND SATISFACTION

	Campground															
Satisfaction	1		2		3		4		5		6		7		Total	
	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%
High	18	26.5	34	47.2	29	45.3	13	19.7	22	53.7	12	14.0	16	39.0	144	32.9
Neutral	41	60.3	36	50.0	30	46.9	39	59.1	18	43.9	61	70.9	22	53.7	247	56.4
Low	9	13.2	2	2.8	5	7.8	14	21.2	1	2.4	13	15.1	3	7.3	47	10.7
Total	68	100.0	72	100.0	64	100.0	66	100.0	41	100.0	86	100.0	41	100.0	428	100.0

Chi Square 49.82764 12 Degrees of Freedom $p < .00001$

1. Pigeon Lake
2. Jarvis Bay
3. Moonshine Lake
4. Williamson
5. Chain Lakes
6. Aspen Beach
7. Beauvais Lake

groups; 1) campgrounds which are providing highly satisfying camping opportunities, 2) campgrounds which are providing low levels of camping satisfaction, and 3) a residual campground which provides a generally neutral level of satisfaction.

B. Campground Grouping

a) Campgrounds Providing Satisfying Experiences

Of the seven campgrounds in the study four can be seen as providing camping experiences which were generally satisfying. These campgrounds are located in the following parks: 1) Jarvis Bay, 2) Moonshine Lake, 3) Chain Lakes, and 4) Beauvais Lake. Even though these campgrounds provide a generally higher level of satisfaction than the other campgrounds in the sample, variations do exist among these parks. One should also be aware that variation in satisfaction also exists within each campground. For example, not all campgrounds which provide generally high levels of satisfaction will satisfy all those who camp there. This variation has two possible explanations; 1) the individual camper was affected by a localized incident which had a negative effect on his stay, or 2) this variation may also be explained partially by the widely varying aspirations held by individual campers.

The Chain Lakes campground provided the greatest percentage of most satisfying experiences, as 53.7% of those camped there were categorized as being very satisfied with their stay. Of significant importance is the fact that only one camper (2.4% of the subsample) was dissatisfied with his stay.

The second highest level of satisfaction was recorded at Jarvis Bay campground where 47.2% of those interviewed were very satisfied with their stay. Again, only two respondents (2.8%) were totally dissatisfied with their stay.

Moonshine had the third highest level of satisfaction recorded with 45.3% of those interviewed being highly satisfied. Unlike Jarvis Bay, Moonshine had a lower percentage of those measured as having "neutral" stays (46.9% as opposed to 50%); however, it had a somewhat higher percentage of those dissatisfied with their camping experience with 7.8% being totally dissatisfied.

Beauvais Lake exhibited a level of satisfaction somewhat lower than the three campgrounds mentioned above with 39.0% being totally satisfied with their stay. However, Beauvais Lake had a high percentage (53.7%) of campers expressing neutral attitudes towards their stay, and only 7.3% were totally dissatisfied, a figure lower than Moonshine's.

b) Campgrounds Providing Low Levels of Satisfaction

Two of the seven campgrounds surveyed, Williamson and Aspen Beach, provided the lowest levels of satisfaction of all the campgrounds in the sample. Williamson had the highest percentage of campers expressing total dissatisfaction (21.2%), with Aspen Beach having the second highest percentage at 15.1%. Furthermore, both campgrounds had the lowest percentage of campers expressing satisfaction with their experiences at the campgrounds, with 14% at Aspen Beach and 19.7% at Williamson.

Both campgrounds have a very high percentage of respondents who were neutral towards their experience at these campgrounds, with 70.9% at Aspen Beach and 59.1% at Williamson. Since these campgrounds appear to be providing sub-optimal levels of satisfaction for their users it could be hypothesized that these high percentages of neutral responses are attributable to the respondents not completely revealing their true feelings about their experience. Like Adam's (1974) study on beach trip decision making and Marquart et al.'s (1972) study on trailer owners, these campers, in order to obtain harmony between their aspirations and actual cognitions (aspirations referring to the expectations for a given camping trip and actual cognitions referring to a dissatisfying camping trip), are responding to the satisfaction question (No. 20, Appendix 1) with answers such as okay, nice, and alright, rather than admitting to having a poor stay. This cognitive dissonance process may be important in determining actual levels of satisfaction obtained by campers but, unfortunately, no data exist to test this hypothesis.

c) The Residual Campground

Pigeon Lake campground is referred to as a residual campground here as it fits into neither of the two groupings previously described. This campground has a percentage of highly satisfied campers (26.5%) which is much higher than those at Williamson and Aspen Beach. However, Pigeon Lake also has a percentage of dissatisfied campers (13.2%) which is much higher than those at the campgrounds providing satisfying camping experiences.

C. Summary

By way of summation, it is possible to rank the campgrounds according to the mean levels of satisfaction they provide. The highest mean level of satisfaction a campground can provide is arbitrarily pegged at a score of one, while three is the score for the lowest possible level of satisfaction. Therefore, a score of two represents a neutral level of satisfaction.

Table 5.2 shows the ranking of the campgrounds and their mean satisfaction scores. Note how the groupings postulated above from the cross-tabulation of satisfaction by the individual campgrounds are also in evidence here. Chain Lakes, Jarvis Bay, Moonshine, and Beauvais Lake have the highest ranking, with satisfaction scores ranging from 1.488 at Chain Lakes to 1.683 at Beauvais Lake; Pigeon Lake is ranked fifth with a score of 1.868, while Aspen Beach and Williamson are the only two campgrounds with scores over two (Williamson, 2.015; Aspen Beach, 2.012). If Table 5.2 were to be viewed in isolation the results would not be convincing evidence as to the nature of the camping experiences provided in each of the campgrounds. However, when combined with the groupings mentioned above, these results tend to strengthen the arbitrary nature of these groupings, as well as becoming an important indicator of within-group variation of camping satisfaction.

D. Random - Non-random Campgrounds

The preceding sections of this chapter have indicated that variation

TABLE 5.2

RANK ORDER OF CAMPGROUNDS BY MEAN SATISFACTION SCORES

Rank	Intensive or Natural Campground	Campground	Score	Randomness of Campground
1.	I	Chain Lakes	1.488	Non-random
2.	I	Jarvis Bay	1.556	Non-random
3.	N	Moonshine Lake	1.625	Random/Non-random
4.	N	Beauvais Lake	1.683	Random
5.	I	Pigeon Lake	1.868	Non-random
6.	I	Aspen Beach	2.012	Random
7.	N	Williamson	2.015	Random

*Scores are derived from the mean level of satisfaction for each campground. A score of 1.00 is the highest level of satisfaction possible, 3 is the lowest.

in camping satisfaction exists between campgrounds. However, this variation has not been accounted for. One possible explanation which may aid in understanding this variation lies in the randomness of the campground design. The distribution of satisfying camping experiences found in the sample appears to be dependent, to some extent, on whether the respondent was located in an older random style campground, or a newer, more structured, non-random style campground. All the campgrounds providing higher levels of satisfaction with the exception of Beauvais Lake, are newer, non-random campground developments. Both campgrounds providing the lowest level of camping satisfaction were older, random campgrounds.

Cross-tabulation of randomness of campground design with satisfaction shows that those camping in non-random campgrounds have a propensity for higher satisfaction than those in random campgrounds. Table 5.3 indicates that 40.6% of those in non-random campgrounds were highly satisfied with their experience as opposed to 25.3% in random campgrounds, while only 7.4% of non-random campground users were highly dissatisfied with their stay in comparison with 14.0% of random campground users.

The reason such variation does exist may lie in the 1976 Alberta camper's desire for structured camping environments. As Hendee and Campbell (1969) and Clark, Hendee and Campbell (1971) point out, the modern camper, as he is primarily an urban dweller (73.1% of the total sample came from centers of over 5,000 population), is becoming increasingly amenable to structured camping environments. Therefore, the more

TABLE 5.3

Relationship Between Randomness of Campground Design and Camping Satisfaction

	Randomness in Campground Design					
	Non-Random		Random		Total	
Satisfaction	No	%	No	%	No	%
High	88	40.6	56	25.3	144	32.9
Neutral	113	52.1	134	60.6	247	56.4
Low	16	7.4	31	14.0	47	10.7
Total	217	100.0	221	100.0	438	100.0

Chi Square 13.648 2 Degrees of Freedom $p<.001$

structured design of the newer, non-random campground provides the type of environment most campers are accustomed to in their urban environments, and are now coming to expect in their camping environments. The random campground appears to offend this sense of structure, as this type of campground design allows campers to invade other campers' activity and personal space, thereby producing stress and consequently resulting in lower levels of camping satisfaction.

There are notable exceptions to this explanation which deserve discussion; however, they do not weaken the basic tenet of the argument. The exceptions are: 1) Beauvais Lake, 2) Pigeon Lake, and 3) Moonshine Lake.

Beauvais Lake is an older, random style campground, and as a result one would expect it to provide lower levels of camping satisfaction. As is evident in Table 5.1, Beauvais Lake has a percentage of those highly satisfied (39.0%), much higher than other random campgrounds at Aspen Beach and Williamson. The reason behind this variation in satisfaction does not lie in the facilities, as in many respects they are comparable (although, subjectively speaking, Beauvais is somewhat cleaner than the other two), but rather in the quality of the surrounding scenic and recreational environment.[2] Beauvais Lake, situated in a foothill environment, has scenic properties much higher than those at Williamson or Aspen Beach. Further, Beauvais has an outstanding rainbow trout sport fishery in the lake, something Williamson and Aspen Beach cannot boast. These extra campground attractions appear to be strong enough influences on the campers at Beauvais Lake to enable them to overlook the disadvantages and dissatisfying aspects of this campground environment and allow them to have satisfying experiences.

Pigeon Lake, a newer non-random campground, is providing lower levels of satisfaction than a facility similar to it at Jarvis Bay. While no clear evidence exists to explain this occurrence at a general level, it may be hypothesized that campers' satisfaction was lowered by the fact that the period of interviewing at Pigeon Lake coincided with the five day Canada Day weekend. This produced crowded conditions in the campground from Tuesday night to the following Sunday. This, plus the fact it was the summer's first long weekend, and consequently the first camping excursion of the year for many people, may have resulted in lower levels of satisfaction than normal.

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[2] This is also a subjective judgment on the part of the author, but with respect to the other two campgrounds in question, it is nonetheless a fair judgment.

Moonshine Lake is a special campground with regard to this study as it has both random and non-random camping developments. It is this random element which may account for the somewhat higher 7.8% dissatisfied campers at Moonshine.

E. Natural vs. Intensive Campgrounds

In Chapter 2 it was postulated that differences may exist between intensively developed campgrounds and natural campgrounds. However, when one looks at Table 5.2 (which also indicates the level of development of the campground) there is no clear variation in satisfaction by intensive vs. natural campgrounds. Cross-tabulation between the intensity of campground development and satisfaction indicated that no significant relationship existed (p=.4094). This is probably the result of there not being a clear division between natural and intensive campgrounds in the study. All the facilities have basically the same level of development, with some providing showers and flush toilets. However, no campground within the Alberta Provincial Parks system provides truly intensive camping experiences (i.e., hookups), therefore this tends to group the facilities provided together in a class somewhere between natural and intensive.

CHAPTER SIX

THE CAMPER AND CAMPING SATISFACTION

A. Introduction

It is now clear that camping satisfaction in Alberta Provincial Parks varies spatially between the individual campgrounds. This chapter investigates variations in camping satisfaction between individual campers and groups of campers. Three sets of variables will be considered here in an attempt to understand the relationships that exist between the campers and their on-site camping satisfaction: 1) profile variables, 2) campground experience variables, and 3) the campers' likes and dislikes of the campgrounds. These three sets of variables will be a valuable aid in understanding the following: 1) whether camping satisfaction is socially determined (using profile variables), 2) whether camping satisfaction is affected by a person's familiarity with a given campground (campground experience variables), and 3) how campers' explicit perceptions, or unprompted responses on likes and dislikes of the campground are related to camping satisfaction.

B. Profile Data

The profile variables (which include education, income, age, occupation, marital status, size of place of residence and upbringing, number of people in the camping party, and number of children), as Burch (1969, p. 125) points out, have traditionally been poor indicators of recreational satisfaction. Burch (1969, p. 125) also states that recreational satisfaction may be too individualistic for profile variables to explain variance in camping satisfaction, as these variables tend to group people into social aggregates, and, by such generalization, obscure individual variations with regard to other, perhaps more pertinent factors. This generality also appears to hold true in this study where none of the profile variables was significantly related to camping satisfaction.

This lack of relationship between profile variables and camping satisfaction was not affected by the introduction of two control variables, 1) the individual campgrounds, and 2) the randomness of the campground design. This lack of significant results suggests that there is no differentiation in levels of satisfaction among the seven campgrounds, or between random and non-random campgrounds, based upon profile data.

This finding supports Burch's (1969) statement and is not surprising, in that, while Burch and Wenger (1967), Hendee (1967), and others have found profile data do act fairly well as predictors of camping preference, all seven campgrounds in the study provide roughly the same type of camping experience, an experience that falls between combination and easy access camping (Burch and Wenger, 1967). Therefore, one would not expect to find variation in satisfaction by profile data.

C. Campground Experience Variables

All campground experience variables were significantly related to camping satisfaction. These variables are: 1) having camped in the surveyed campground before, and 2) number of days spent in the campground at the time of interviewing. Table 6.1 shows the dependent variable, camping satisfaction, cross-tabulated against days spent in the surveyed campground. The construction of the relationship shown in Table 6.1, using days spent as the independent variable, indicates the more frequent expression of high satisfaction among those who stayed in the campground longer than three days (45.1%), in comparison to those who only stayed one day (26.7%). This interpretation suggests that satisfaction increases with length of stay. However, if satisfaction is used as the independent variable and days spent becomes the dependent variable (Table 6.2) the following relationship emerges: Respondents expressing a high degree of satisfaction were more likely to stay three or more days (31.9%) than those expressing neutral or low satisfaction (19.0% and 19.1% respectively). Conversely, only 46.5% of the higher satisfaction group had short visits (one day), compared with 62.3% and 63.8% of the other groups.

The interpretation of Table 6.2 suggests that if a camper gains a certain measure of satisfaction in a particular campground he will have a marked propensity to stay longer so as to keep on enjoying this satisfying recreational experience. Conversely, if a person is dissatisfied with the campground he will have a much higher propensity for cutting short his stay.

The relationships portrayed in Tables 6.1 and 6.2 are what Rosenburg

TABLE 6.1

Relationship Between Days Camped in the Surveyed Campground and Camping Satisfaction

	Days Camped							
	1		2		≥3		Total	
Satisfaction	No	%	No	%	No	%	No	%
High	67	26.7	31	36.5	46	45.1	144	32.9
Neutral	154	61.4	46	54.1	47	46.1	247	56.4
Low	30	12.0	8	9.4	9	8.8	47	10.7
Total	251	100.0	85	100.0	102	100.0	438	100.0

Chi Square 11.80 5 Degrees of Freedom $p<.05$

TABLE 6.2

Relationship Between Camping Satisfaction and Days Camped in the Surveyed Campground

	Satisfaction							
	High		Neutral		Low		Total	
Days Camped	No	%	No	%	No	%	No	%
1	67	46.5	154	62.3	30	63.8	251	57.3
2	31	21.5	46	18.6	8	17.0	85	19.4
≥3	46	31.9	47	19.0	9	19.1	102	23.3
Total	144	100.0	247	100.0	47	100.0	438	100.0

Chi Square 11.80 5 Degrees of Freedom $p<.05$

(1968, p. 8-9) describes as a reciprocal relationship, or a relationship where it is not immediately possible to specify which variable is dependent and which variable is independent. Intuitively the relationship illustrated in Table 6.2 is more plausible for the following reason. It is more reasonable to expect that satisfaction gained in a particular camping trip will influence that particular camper to remain on site longer than it is to expect that the longer the camper stays the more satisfied he will be, regardless of his initial impressions of the campground.

Another instance of a reciprocal relationship is that between camping satisfaction and having camped previously in the surveyed campground (see Tables 6.3 and 6.4). Table 6.3 shows satisfaction as the dependent variable and campground experience as the independent variable. This table indicates that those campers who have camped in a surveyed campground previously have a lower propensity for dissatisfaction (6.5%) than those who do not have this previous experience (14.8%), although there were no differences in the proportion expressing high satisfaction. However, if previous experience is used as a dependent variable the relationship becomes more explicit (see Table 6.4). Those who have obtained low levels of satisfaction are much more likely to be those who have not camped in the campground previously (70.2% as opposed to 29.8%). These data do not pose the ambiguity encountered in the relationship between days spent in the campground and satisfaction. Both Tables 6.3 and 6.4 suggest that those who have not camped at the surveyed campground previously will have a higher propensity for dissatisfaction and consequently are less likely to return

TABLE 6.3

Relationship Between Those Having Camped Previously in the Surveyed Campgrounds and Satisfaction

	Camped Before					
	Yes		No		Total	
Satisfaction	No	%	No	%	No	%
High	69	32.1	75	33.6	144	32.9
Neutral	132	61.4	115	51.6	247	56.4
Low	14	6.5	33	14.8	47	10.7
Total	215	100.0	223	100.0	438	100.0

Chi Square 8.957 2 Degrees of Freedom p<.01

TABLE 6.4

Relationship Between Camping Satisfaction and Those Having Camped Previously in the Surveyed Campgrounds

	Satisfaction							
	High		Neutral		Low		Total	
Camped Before	No	%	No	%	No	%	No	%
Yes	69	47.9	132	53.4	14	29.8	215	49.1
No	75	52.1	115	46.6	33	70.2	233	50.9
Total	144	100.0	247	100.0	47	100.0	438	100.0

Chi Square 8.957 2 Degrees of Freedom p<.01

to the campground. This interpretation is given support by Table 6.5 which indicates that those who have camped before are more likely to return to the surveyed campground (92.5%), than those who had not camped before (71.4%). Conversely, those who have not camped before have a higher propensity for stating they would not return to the campground (28.6% as compared with 7.5%).

TABLE 6.5

Relationship Between Those Having Camped Previously in the Surveyed Campgrounds and Their Willingness to Return Again

	Camped Before					
Would Return	Yes		No		Total	
	No	%	No	%	No	%
Yes	198	92.5	160	71.4	358	81.7
No	16	7.5	64	28.6	80	18.3
Total	214	100.0	224	100.0	438	100.0

Chi-Square 31.224 1 Degree of Freedom $p < .00001$

Tables 6.2 through 6.5 produce insights into relationships which exist between camping satisfaction and the campground experience variables; however, these relationships do little to isolate the groups of campers who are the most and least satisfied. To facilitate such an isolation of the most satisfied and dissatisfied groups a breakdown analysis was undertaken, as it provides a simple technique for examining means and variances of a dependent variable among various sub-groups of the total sample population (Nie, et al., 1975, p. 249).

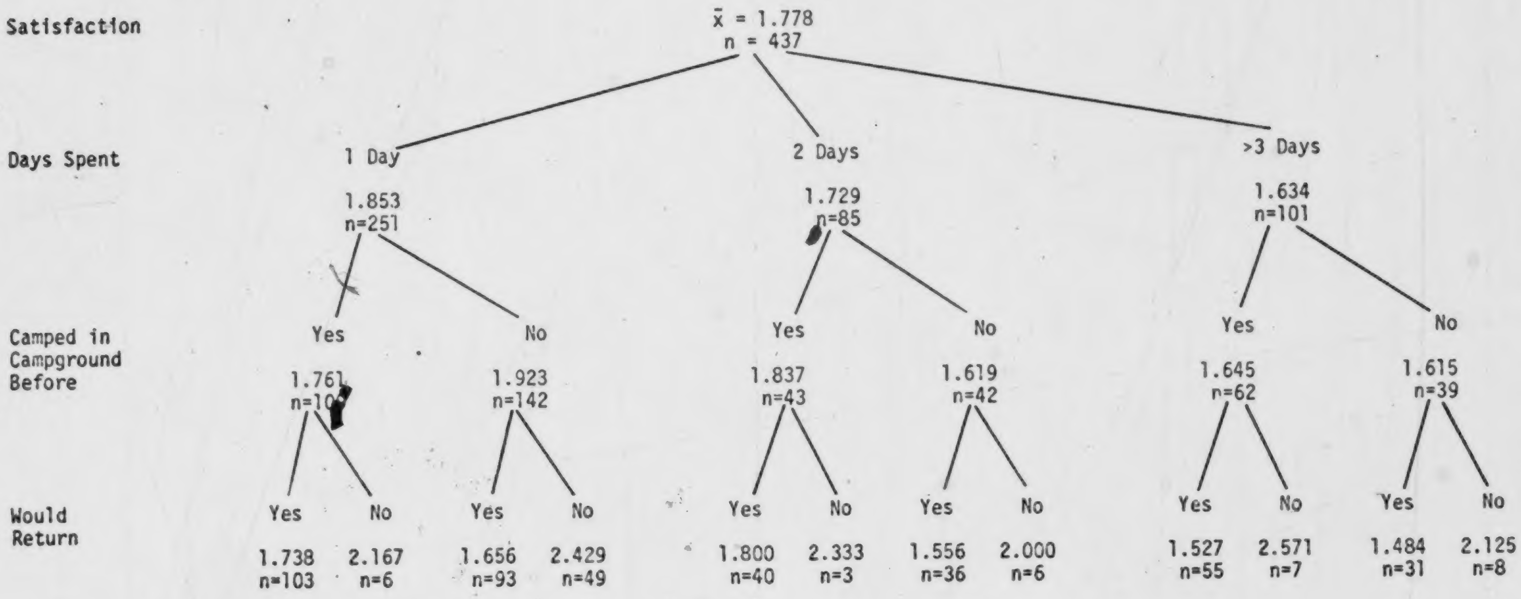
Figure 6.1 shows the breakdown analysis of the dependent variable satisfaction by the independent variables day spent at the campground, previous camping experience with the surveyed campground, and whether the respondent would return to the campground. In a breakdown analysis a mean score for the dependent variable is calculated for each of the sub-groups identified. In this case, the mean value is read as follows; scores close to one (1) indicate comparatively high satisfaction, while scores close to three (3) indicate low satisfaction or dissatisfaction. The mean satisfaction statistic allows for comparisons between sub-groups based upon the group's level of satisfaction, relative to other groups.

The analysis shows that two groups of campers appear to be the most dissatisfied; they are, 1) those who had been camped only one day, had not camped before and would not return to the campground in the future ($\bar{x}$ = 2.429), and 2) those who had been in the campground longer than three days, had camped at the campground before, and would not return to the campground ($\bar{x}$ = 2.571). The most highly satisfied groups of campers were; 3) those who had been in the campground longer than three days, had camped there before, and would return to the campground ($\bar{x}$ = 1.527), and 4) those who had not camped in the campground before, had been there longer than three days, and would return to the campground ($\bar{x}$ = 1.484).

The first dissatisfied group (#1 above) did not have previous experience with the surveyed campground and due to their dissatisfaction it can be assumed that their on-site experience did not meet their

FIGURE 6.1

Breakdown of Satisfaction by Days Spent in Surveyed Campground, Previous Experience With the Surveyed Campground, and Whether Respondent Would Return to the Campground


Satisfaction
Days Spent
Camped in Campground Before
Would Return
x̄ = 1.778
n = 437
1 Day
1.853
n=251
2 Days
1.729
n=85
>3 Days
1.634
n=101
Yes
1.761
n=10[illegible]
No
1.923
n=142
Yes
1.837
n=43
No
1.619
n=42
Yes
1.645
n=62
No
1.615
n=39
Yes
1.738
n=103
No
2.167
n=6
Yes
1.656
n=93
No
2.429
n=49
Yes
1.800
n=40
No
2.333
n=3
Yes
1.556
n=36
No
2.000
n=6
Yes
1.527
n=55
No
2.571
n=7
Yes
1.484
n=31
No
2.125
n=8

p<.008

expectations. Partially as a result of this dissatisfaction these campers were not in the campground longer than one day, and moreover, they would not consider returning to the campground.

The second group of dissatisfied campers (#2 above) were people who did have previous experience with the surveyed campground but apparently found the on-site experience, which led them to return, had deteriorated to such a degree that their camping expectations were no longer being met, hence dissatisfaction. While no data exist to test this interpretation, the following intuitive analysis may give some insights into the causes for this group's dissatisfaction. This group had been camped for over three days before being interviewed, a fact which is attributable to these campers planning extended stays due to possible previously satisfying experiences at the surveyed campground. However, the last stay dissatisfied these campers to such an extent that they would not consider returning in the future. Since the sample size of this group was only seven it is difficult to make such interpretations with any degree of certainty.

Of the two groups of highly satisfied campers, the first (#3 above) had camped in the surveyed campground previously and therefore did have an opportunity to develop reasonable expectations vis-a-vis the surveyed campground. If no radical changes (real or perceived) had occurred in the campground since the last trip, or there were not extraordinary events taking place which may have a negative impact on camping satisfaction, then the campers' expectations should be met and higher levels of satisfaction result.

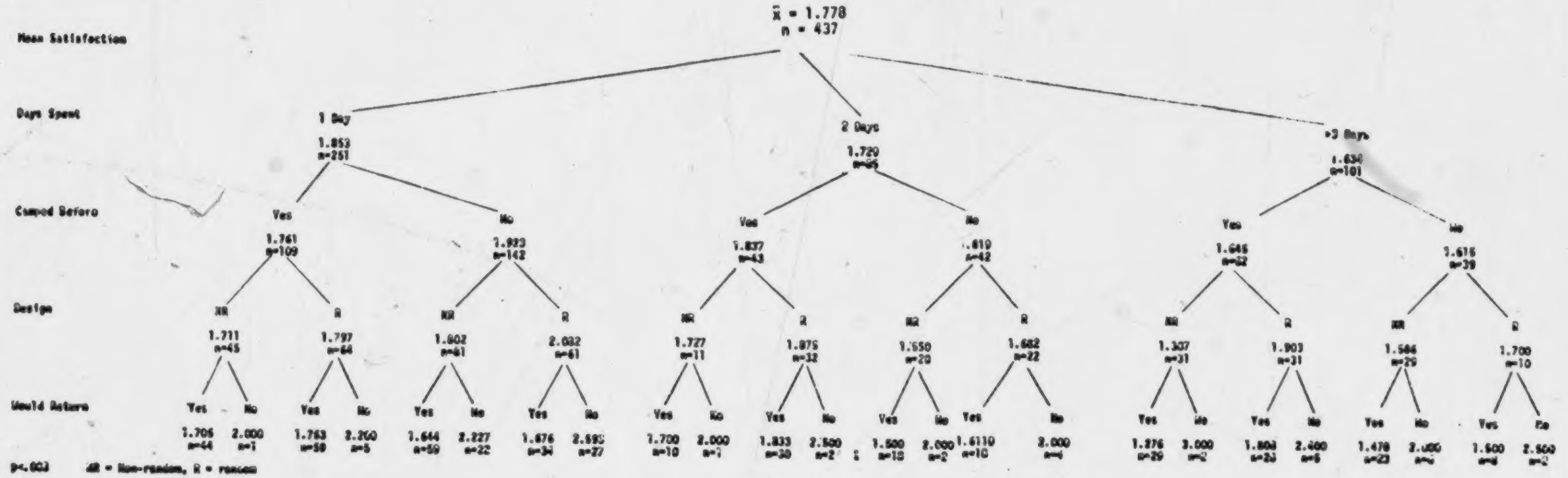
The second satisfied group (#4 above) differs from group #3 in that these campers did not have previous experience in the surveyed campground. This group's extremely high mean score ($\bar{x} = 1.84$) may be explained by hypothesizing that this group found the surveyed facility and the experience it offered fit their expectations for that camping trip, even though they had never been to the campground before. This satisfaction is reflected in their staying for greater than three days and stating they would return to the campground in the future.

The inclusion of another independent variable, randomness of campground design, into the breakdown analysis allows the satisfied and dissatisfied groups to be delineated to a higher degree of specificity than was possible in the earlier analysis. Moreover, the introduction of additional independent variable acts as a control as, if the aforementioned relationships do not disappear in the second stage analysis, the relationships and their interpretation are strengthened.

In Figure 6.2 we see there is one group (designated group #1) which exhibit higher levels of satisfaction than the rest of the sample. These campers have been in the campground more than three days before being interviewed, they had camped there previously, they would return to the campground, and they were located in non-random campgrounds. This group bears a similarity to group #3 mentioned in connection with Figure 6.1, with the added factor being that the group was located specifically in non-random campgrounds. The difference in mean scores for satisfaction in this sub-group for those camped in non-random and random campgrounds is substantial ($\bar{x} = 1.276$ non-random, $\bar{x} = 1.808$ random).

FIGURE 6.2

Breakdown of Satisfaction by Days Spent in the Surveyed Campground, Previous Experience with the Surveyed Campground Randomness of the Campground Design, and Whether the Respondent would Return to the Campground


Mean Satisfaction
Days Spent
Camped Before
Design
Would Return
$\bar{x}$ = 1.778
n = 437
1 Day
1.853
n=251
2 Days
1.729
n=85
>3 Days
1.634
n=101
Yes
1.761
n=109
No
1.923
n=142
Yes
1.837
n=43
No
1.619
n=42
Yes
1.645
n=62
No
1.615
n=39
NR
1.711
n=45
R
1.797
n=64
NR
1.802
n=61
R
2.082
n=61
NR
1.727
n=11
R
1.875
n=32
NR
1.550
n=20
R
1.682
n=22
NR
1.307
n=31
R
1.903
n=31
NR
1.586
n=29
R
1.700
n=10
Yes
1.705
n=44
No
2.000
n=1
Yes
1.763
n=59
No
2.200
n=5
Yes
1.644
n=39
No
2.227
n=22
Yes
1.876
n=34
No
2.593
n=27
Yes
1.700
n=10
No
2.000
n=1
Yes
1.833
n=30
No
2.500
n=2
Yes
1.500
n=18
No
2.000
n=2
Yes
1.6110
n=18
No
2.000
n=4
Yes
1.276
n=29
No
3.000
n=2
Yes
1.808
n=25
No
2.400
n=6
Yes
1.478
n=23
No
2.000
n=6
Yes
1.500
n=8
No
2.500
n=2

p<.003 NR = Non-random, R = random

The most highly dissatisfied group (group #2) of campers had only camped one day when interviewed, they had not camped in the surveyed campground previously, they stated they would not return in the future, and they were located in random campgrounds ($\bar{x}$ = 2.593). Once again, the only difference between this group and group #1 delineated by Figure 6.1 is that these campers are located in random campgrounds. Therefore, because the group's mean score ($\bar{x}$ = 2.593) indicates this group to be less satisfied than a similar group in non-random campgrounds ($\bar{x}$ = 2.227), it must be assumed that this group's dissatisfaction and group #1's satisfaction result, in part, from the difference in camping experiences obtained from camping in random and non-random campgrounds. Further examination of Figure 6.2 shows that in every instance mean levels of satisfaction are lower in random than in non-random campgrounds.

By way of summary, Table 6.6 has been produced to show the actual levels of satisfaction obtained within each of the four groups described in Figure 6.1. This table illustrates the exact distribution of satisfaction among these four groups and demonstrates that marked differences do exist between groups having high and low mean satisfaction scores. Note that groups which have high mean satisfaction levels have extremely low percentages of those highly dissatisfied while those groups with low mean satisfaction levels have low percentages of those highly satisfied.

Table 6.7 shows the distribution of levels of satisfaction for the two groups delineated by the breakdown analysis of Figure 6.2. Again, note how satisfaction differs by the randomness of the campground design.

TABLE 6.6

Levels of Satisfaction for the Four Groups
Delineated by Breakdown Analysis Fig. 6.1

	Group Number									
	1		2		3		4		Total	
Satisfaction	No	%	No	%	No	%	No	%	No	%
High	3	6.1	0	0.0	28	50.9	17	54.8	48	33.8
Neutral	22	44.9	3	42.9	25	45.4	13	41.9	63	44.4
Low	24	49.0	4	57.1	2	3.6	1	3.3	31	21.8
Total	49	100.0	7	100.0	55	100.0	31	100.0	142	100.0

Chi Square 43.86 6 Degrees of Freedom $p<.0001$

Group #1 - Camped 1 day, had not camped before, and would not return to the campground ($\bar{x} = 2.429$).

Group #2 - Camped longer than 3 days, had camped at the campground before and would not return ($\bar{x} = 2.571$).

Group #3 - Camped longer than 3 days, had camped in the campground before and would return ($\bar{x} = 1.527$).

Group #4 - Camped longer than 3 days, had not camped in the campground before and would return ($\bar{x} = 1.484$).

TABLE 6.7

Levels of Satisfaction for the Two Groups Delineated by Breakdown Analysis (Fig. 6.2)

	Group Number					
	1		2		Total	
Satisfaction	No	%	No	%	No	%
High	21	72.4	0	0.0	21	37.5
Neutral	8	27.6	11	40.7	19	33.9
Low	0	0.0	16	59.3	16	28.6
Total	29	100.0	27	100.0	56	100.0

Chi Square 19.18 2 Degrees of Freedom p<.0001

Group #1 - Camped greater than 3 days, camped in the campground before, would return to the campground and were located in non-random campgrounds.

Group #2 - Camped 1 day, had not camped previously, would not return in the future and were located in random campgrounds.

This illustrates that satisfaction does not only differ by the individual camper but also by the randomness of the campground design. These findings support the analysis of Chapter 5 which indicated that variation, and in some cases extreme variation, in satisfaction exists between random and non-random campgrounds.

D. Camper's Likes and Dislikes

The preceding discussion has demonstrated, among other things, that those who obtain lower levels of satisfaction are more likely to be found in random campgrounds, while those campers who are most satisfied with their camping experience are located more frequently in non-random campgrounds. An analysis of campers' expressed likes and dislikes of random and non-random campgrounds may serve to clarify further why this variation in camping satisfaction exists.

In questions #5 and #6 of the questionnaire (see Appendix A), the respondent was asked to enumerate his likes and dislikes of the surveyed campground. Table 6.8 shows the number of likes mentioned by the respondents cross-tabulated against the dependent variable camping satisfaction. As one would intuitively expect, as the number of stated likes increases so does the level of satisfaction of the respondent. Conversely, Table 6.9 shows that as the number of stated dislikes increases there is a propensity for the respondents' level of satisfaction to decrease proportionately. Even though these tables do not indicate what elements in the camping environment result in stating the likes and dislikes they do illustrate,

TABLE 6.8

Relationship Between Number of Likes Mentioned and Satisfaction

	Number of Likes									
	0		1		2		≥3		Total	
Satisfaction	No	%	No	%	No	%	No	%	No	%
High	5	9.4	35	29.7	42	31.8	62	45.9	144	32.9
Neutral	34	64.2	72	61.0	75	56.8	66	48.9	247	56.4
Low	19	26.4	11	9.3	15	11.4	7	5.2	47	10.7
Total	53	100.0	118	100.0	132	100.0	135	100.0	438	100.0

Chi Square 41.85 6 Degrees of Freedom $p<.00001$

TABLE 6.9

Relationship Between Number of Dislikes Mentioned and Satisfaction

	Number of Dislikes									
	0		1		2		≥3		Total	
Satisfaction	No	%	No	%	No	%	No	%	No	%
High	45	46.4	75	38.7	17	19.3	7	11.9	144	32.9
Neutral	50	51.5	105	54.1	56	63.6	36	61.0	247	56.4
Low	2	2.1	14	7.2	15	17.0	16	27.1	47	10.7
Total	97	100.0	194	100.0	88	100.0	59	100.0	438	100.0

Chi Square 49.0 6 Degrees of Freedom $p<.00001$

by the strength of the relationships (both are significant at the $p<.00001$ level), that stated likes and dislikes are tied, in integral fashion, with camping satisfaction.

a) Variation in Likes and Dislikes by the Randomness of the Campground Design

In Tables 6.10 and 6.11 the percentage of those mentioning specific likes and dislikes in non-random and random campgrounds are shown. These tables reveal that, with the exception of those expressing a like for the natural environment and a dislike for lack of facilities in the campground, campers in non-random campgrounds consistently mentioned specific likes more often than campers in random campgrounds. Conversely, those camping in random campgrounds consistently mentioned dislikes more often than those camped in non-random campgrounds.

These tables reveal that campers in non-random campgrounds liked the design of the campground, its management and maintenance (cleanliness), and the quietness found there with a considerably higher frequency than random campground users. The random campground user mentioned dislikes relating to poor design of the campground, unclean conditions, and management problems (nuisance noise and behavior) more frequently than those in non-random campgrounds.[1] These comments would appear to indicate that there is a basic difference in the environments of the two styles of

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[1] The variation in those mentioning the natural environment as a like can be seen as a result of the campground location rather than a comment on the campground itself. As the result of spending extended periods of time in all the survey campgrounds, I would subjectively rate the scenic location of the random campgrounds as superior to that of the non-random campgrounds.

TABLE 6.10

Percentages of Those Mentioning Individual Likes in Non-random & Random Campgrounds

	Campground Style		
Likes	Non-random %	Random %	Total Sample %
Design	58.5	31.2	44.7
Management & Maintenance	32.7	18.1	25.3
Quiet	18.4	6.8	12.6
Natural Environment	34.6	54.3	44.5

TABLE 6.11

Percentages of Those Mentioning Individual Dislikes in Non-random & Random Campgrounds

	Campground Style		
Likes	Non-random %	Random %	Total Sample %
Poor Design	31.8	38.0	34.9
Unclean	6.0	21.3	13.7
Management Problems (Noise)	12.0	24.9	18.5
Lack of Facilities	24.4	21.3	22.8

campgrounds. It appears that the non-random campground is perceived as being better designed, cleaner, and quieter than the random campground, while the random campground is perceived as being noisier, dirtier and more poorly designed than the non-random campground.

These data indicate that campers are more positive in their reaction towards non-random than random campgrounds. These tables also illustrate possible dimensions along which the two styles of campgrounds differ. However, this analysis does not show how these likes and dislikes affect camping satisfaction. It is conceivable that a like or dislike may have been mentioned frequently, but due to its lack of saliency, it does not strongly influence satisfaction. Therefore, to analyse the actual relationships that exist between likes and dislikes and satisfaction a set of eight tables has been constructed. These tables show the percentage of those obtaining the various levels of satisfaction for the individual likes and dislikes, broken down by the randomness of the campground design.

Table 6.12 shows that the difference between the levels of satisfaction obtained by those mentioning campground design as a like in both random and non-random campgrounds is not substantial. While those in non-random campgrounds expressed a like for campground design more frequently than random campground users (127 to 69) there was not a large difference between the percentages of those expressing this like and obtaining high levels of satisfaction in the two styles of campgrounds (42.5% non-random, 36.2% random). This difference in satisfaction does not reflect the expected magnitude of variance anticipated based upon Table 6.10. In

TABLE 6.12

Percentages of Those Mentioning Campground Design as a Like Cross-tabulated with Satisfaction for Random & Non-random Campgrounds

	Campground Style					
	Non-random		Random		Total Sample	
Satisfaction	No	%	No	%	No	%
High	54	42.5	25	36.2	79	40.3
Neutral	69	54.3	38	55.1	107	54.6
Low	4	3.2	6	8.7	10	5.1
Total	127	100.0	69	100.0	196	100.0

Chi Square 3.14 2 Degrees of Freedom p<.20

Table 6.10 there was a 27.3% difference between those mentioning campground design as a like in both random and non-random campgrounds. Because this large difference in the percentages of those mentioning campground design as a like were not translated into large differences in satisfaction (Table 6.12), it would appear that liking campground design does not have a high degree of effect on explaining variation in camping satisfaction.

However, when the dislike of poor campground design (Table 6.13) is taken into consideration it is apparent that this dislike has a high degree of effect on camping satisfaction. Table 6.11 reported only a 7% difference between those mentioning this dislike in random and non-random campgrounds. However, Table 6.13 shows that those who mention this dislike in random campgrounds are much more likely to be dissatisfied than those

TABLE 6.13

Percentages of Those Mentioning Poor Campground Design as a Dislike Cross-tabulated with Satisfaction for Random & Non-random Campgrounds

	Campground Style					
	Non-random		Random		Total Sample	
Satisfaction	No	%	No	%	No	%
High	23	33.3	13	15.5	36	23.5
Neutral	39	56.5	49	58.3	88	57.5
Low	7	10.1	22	26.2	29	19.0
Total	69	100.0	84	100.0	153	100.0

Chi Square 10.1 2 Degrees of Freedom $p<.01$

in non-random campgrounds (26.2% in random campgrounds as opposed to 10.1% in non-random campgrounds).

It appears, based on the data presented in Tables 6.12 and 6.13, that the camper's level of satisfaction is affected to a greater extent by poor campground design than by the positive attraction of a well designed campground. This may be the result of camper's levels of satisfaction being tied in a more intimate fashion with expectations which are not met (i.e., the negative influence of poor campground design) than by expectations which are met in a well designed campground. This then suggests that poor campground design is a highly salient factor affecting camping satisfaction.

Maintenance and cleanliness of the campground (a like, Table 6.14) and unclean campground conditions (a dislike, Table 6.15) both indicate

TABLE 6.14

Percentages of Those Mentioning Management and Maintenance as a Like Cross-tabulated with Satisfaction for Random & Non-random Campgrounds

	Campground Style					
	Non-random		Random		Total Sample	
Satisfaction	No	%	No	%	No	%
High	33	46.5	20	50.0	53	47.7
Neutral	34	47.9	19	47.5	53	47.7
Low	4	5.6	1	2.5	5	4.5
Total	71	100.0	40	100.0	111	100.0

Chi Square .66 2 Degrees of Freedom p<.80

TABLE 6.15

Percentages of Those Mentioning Unclean Conditions as a Dislike Cross-tabulated with Satisfaction for Random & Non-random Campgrounds

	Campground Style					
	Non-random		Random		Total Sample	
Satisfaction	No	%	No	%	No	%
High	3	23.1	8	17.0	11	18.3
Neutral	7	53.8	29	61.7	36	60.0
Low	3	23.1	10	21.3	13	21.7
Total	13	100.0	47	100.0	60	100.0

Chi Square .46 2 Degrees of Freedom p<.80

that levels of satisfaction for both styles of campgrounds are quite similar. This shows a great divergence from the information presented in Tables 6.10 and 6.11 where the differences between the percentages of those mentioning management and maintenance as a like in random and non-random campgrounds was 14.6%, while the difference was 12.9% for those mentioning unclean conditions as a dislike. While Tables 6.10 and 6.11 indicate that non-random campgrounds are perceived as being cleaner than random campgrounds, the similarity in levels of satisfaction reported in Tables 6.14 and 6.15 of those who did mention this particular like and dislike indicates that those in random and non-random campgrounds perceive cleanliness in the same manner. These results illustrate that most campers, regardless of whether they are in random or non-random campgrounds, perceive campground cleanliness the same; unclean conditions mean higher rates of dissatisfaction while clean conditions result in higher levels of satisfaction.

Tables 6.10 and 6.11 show that a higher percentage of campers perceive non-random campgrounds to be quieter than random campgrounds. Table 6.16 indicates that those mentioning quietness in non-random campgrounds are much more highly satisfied than those mentioning the same like in random campgrounds (65% as opposed to 40% respectively). Further, those mentioning management problems (noise) as a dislike in random campgrounds (Table 6.17) were much more dissatisfied with their stay than those in non-random campgrounds (25.5% as opposed to 7.7%).

Table 6.10 indicated that random campground users were more frequently

TABLE 6.16

Percentages of Those Mentioning Quietness as a Like Cross-tabulated with Satisfaction for Random & Non-random Campgrounds

	Campground Style					
	Non-random		Random		Total Sample	
Satisfaction	No	%	No	%	No	%
High	26	65.0	6	40.0	32	58.2
Neutral	13	32.5	8	53.3	21	38.2
Low	1	2.5	1	6.7	2	3.6
Total	40	100.0	15	100.0	55	100.0

Chi Square 3.37 2 Degrees of Freedom p<.15

TABLE 6.17

Percentages of Those Mentioning Management Problems (Noise) as a Dislike Cross-tabulated with Satisfaction for Random & Non-random Campgrounds

	Campground Style					
	Non-Random		Random		Total Sample	
Satisfaction	No	%	No	%	No	%
High	11	42.3	13	23.6	24	29.6
Neutral	13	50.0	28	50.9	41	50.6
Low	2	7.7	14	25.5	16	19.8
Total	26	100.0	55	100.0	81	100.0

Chi Square 4.90 2 Degrees of Freedom p<.075

bothered by noise than those using non-random campgrounds. According to Table 6.17, those who mention noise as a dislike in random campgrounds have their camping experiences affected negatively, more so than those in non-random campgrounds. Conversely, those who mention quietness as a like in random campgrounds (Table 6.16) have a propensity for being less satisfied than non-random campground users. While the actual cause for the higher frequency of noise complaints in random campgrounds can not be isolated here, it may be hypothesized that the lack of individual sites in random campgrounds allows for crowding and deprivation of privacy which causes campers to be more acutely aware of noise problems.

TABLE 6.18

Percentages of Those Mentioning Lack of Facilities as a Dislike Cross-tabulated with Satisfaction for Random & Non-random Campgrounds

	Campground Style					
	Non-random		Random		Total Sample	
Satisfaction	No	%	No	%	No	%
High	25	47.2	4	8.5	29	29.0
Neutral	24	45.3	38	80.9	62	62.0
Low	4	7.5	5	10.6	9	9.0
Total	53	100.0	47	100.0	100	100.0

Chi Square 18.25 2 Degrees of Freedom $p<.001$

Table 6.18 shows a dramatic difference between the levels of satisfaction obtained by those mentioning lack of facilities as a dislike in the two styles of campgrounds. These results are unexpected as Table 6.11 revealed that there was no discernible difference between the percentages of those mentioning this dislike in random and non-random campgrounds (21.3% and 24.4% respectively). The low percentage of those mentioning this dislike and obtaining high satisfaction in random campgrounds (8.5%) is primarily due to one campground, Aspen Beach, influencing the results. Table 6.19 shows that 33, or 38.4% of all those interviewed at Aspen Beach, indicated that the campground lacked sufficient facilities. This, among other factors, resulted in a very low number of those mentioning this dislike having a very satisfying camping experience at Aspen Beach (1 or 3%). In turn, those respondents from Aspen Beach accounted for 70.2% of all those mentioning this dislike in random campgrounds, hence their disproportional representation in Table 6.18.

TABLE 6.19

Relationship Between Disliking the Lack of Facilities and Satisfaction at Aspen Beach Campground

	Dislike Lack of Facilities					
	Mentioned		Not Mentioned		Total	
Satisfaction	No	%	No	%	No	%
High	1	3.0	11	20.8	12	14.0
Neutral	28	84.8	33	62.2	61	70.9
Low	4	12.2	9	17.0	13	15.1
Total	33	100.0	53	100.0	86	100.0

Chi Square 6.359 2 Degrees of Freedom p<.04

Aspen Beach provides high density camping on a beach environment. Due to this location campers come here to swim and participate in other social activities centered on or about the beach. A high percentage of these campers (38.4%) perceived the need for more facilities (i.e., showers and flush toilets) as these facilities are consistant with the goals of this socially oriented style of camping.

b) Summation of Likes and Dislikes

By way of summation it is now possible to make a number of statements about random and non-random campgrounds based upon the expressed likes and dislikes of these campers:

1) The total of the campers' stated likes and dislikes are strongly related to camping satisfaction (Tables 6.8 and 6.9).

2) Based upon frequency of likes and dislikes mentioned, random campground environments were seen by campers to be inferior to non-random campgrounds on such items as campground design, cleanliness and noise.

3) It was illustrated that some likes and dislikes have a higher degree of saliency upon camping satisfaction. Analysis indicated that noise appears to have the strongest effect upon satisfaction, followed by design of the campground, lack of facilities and the natural environment.

4) Campers dislike random campground design, as 38% consider them to be poorly designed, and of that 38% that mentioned poor design as a dislike only 15.5% were satisfied with their camping experience.

5) All campers, regardless of what style of campground they were located in, dislike unclean campground conditions. However, uncleanliness was mentioned 3.5 times more frequently in random campgrounds, thereby

leading one to believe that the cleanliness of random campgrounds is suspect.

6) Noise, especially in random campgrounds where privacy is sometimes limited, is a major problem for many campers.

E. Conclusions

In this chapter it has been possible to isolate the groups of campers who are both highly satisfied and dissatisfied with their camping experiences. The data found in Tables 6.3 and 6.4 can be seen as a partial confirmation of the familiarity hypothesis of recreational behaviour as reported by Burch (1969) and Knopp (1972). The familiarity hypothesis states that, ". . . persons have worked out a comfortable routine for social survival and that the rewards of security outweigh any possible rewards brought on by the high costs of uncertainty" (Burch, 1969, p. 132). In the camping context we see campers returning with some frequency to campgrounds which, in the past, have provided them with some measure of satisfaction. As Mercer (1971, p. 266) points out, there is a reluctance for a person to break out of this familiar pattern of recreation choice as he is certain of obtaining satisfaction at the familiar site and uncertain what might be found elsewhere. Therefore, the satisfaction obtained by return visitors, for this study's sample population, may be the result of developing levels of expectations (for a particular campground) which are easily met, whereas the person camping for the first time at a particular campground does not have these modified expectations and therefore has a more difficult time obtaining high levels of satisfaction.

A later breakdown analysis indicated that campground experience variables are significantly associated with camping satisfaction. Further analysis on the explicit likes and dislikes of the campers indicated a profound difference exists between campers' perceptions of random and non-random camping environments. Both analyses indicate a strong differentiation of likes and dislikes exists between campers in random and non-random campgrounds.

The findings presented in this chapter indicate only general dimensions along which these likes and dislikes lie. It is now necessary to analyse the component parts of the two styles of campgrounds in an attempt to understand the causes for the variation of likes and dislikes which campers have towards these two styles of campgrounds. It is also of vital importance to know if the campground environment itself is the determining factor in camping satisfaction or whether satisfaction is determined by the camper's perception of that environment. These are questions to be considered in the following chapters.

CHAPTER SEVEN

THE CAMPGROUND ENVIRONMENT AND SATISFACTION

A. Introduction

In this chapter the relationships between both the perceived and actual camping environments and camping satisfaction will be explored with the hope of establishing which of these two dimensions of the camping environment best explains variation in camping satisfaction. The analysis will include three major themes: 1) establishing the relationship between the actual campground environment and satisfaction, 2) establishing the relationship between the perceived campground environment and satisfaction, and 3) understanding how perceived distance is related to actual distance in the campground environment. It is of major importance that an understanding of whether the campground environmentally determines satisfaction or whether satisfaction is dependent, in part, on the individual camper's perceptions of this recreational environment. The resolution of this question is of major importance as it may determine the direction and type of recommendations which come out of this study.

B. Satisfaction and the Actual Campground Environment

The purpose of this section is to examine to what extent camping satisfaction is related to the actual campground environment. Here the term actual campground environment refers to the objectively measured distances from the site on which the interview was conducted to the various facilities in the campground[1] and the actual amount of vegetative screening which exists between the campsites. These distances were measured with the use of a tape and therefore are an objective representation of the actual, as opposed to perceived, campground environment.

Data analysis shows that in only two instances are the actual distances from the campsite to other facilities in the campground significantly related to camping satisfaction. Table 7.1 shows satisfaction cross-tabulated against actual distance to water supply. While the relationship is significant (p=.0235) there does not appear to be any clear pattern emerging from this table as both satisfaction and dissatisfaction tend to increase as distance to the water supply increases. Table 7.2 shows the relationship between satisfaction and the distance to the firewood supply, and it is here that a discernable pattern emerges. As the actual distance to the firewood increases the percentage of those obtaining high levels of satisfaction decreases (at a distance of greater than 91 meters - 300 feet - only 26.2% were satisfied compared with 48.1% of those located between 15 to 30 meters away from the firewood). The percentage of those who are dissatisfied increases rapidly with distance from the firewood.

No significant relationships exists between the actual percentage of screening between sites and satisfaction until campground design is introduced into the analysis. In non-random campgrounds satisfaction is

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[1] These facilities are: 1) the adjacent sites, 2) washrooms or outdoor toilets, 3) water supply, 4) distance to the road, and 5) firewood.

TABLE 7.1

Relationship Between the Distance From the Camper's Site to the Water Facility and Satisfaction

	Distance to Water Facility									
	<50'		50-100'		101-300'		>300'		Total	
Satisfaction	No	%	No	%	No	%	No	%	No	%
High	10	41.7	17	25.8	63	38.0	35	50.0	125	38.3
Neutral	13	54.2	43	65.2	88	53.0	27	38.6	171	52.5
Low	1	4.2	6	9.1	15	9.0	8	11.4	30	9.2
Total	24	100.0	66	100.0	166	100.0	70	100.0	326	100.0

Chi Square 11.2 6 Degrees of Freedom p<.05

TABLE 7.2

Relationship Between the Distance From the Camper's Site to the Firewood Supply and Satisfaction

	Distance to Firewood									
	<50'		50-100'		101-300'		>300'		Total	
Satisfaction	No	%	No	%	No	%	No	%	No	%
High	1	33.3	26	48.1	53	35.1	22	26.2	102	34.9
Neutral	2	66.7	25	46.3	86	57.0	47	55.9	160	54.8
Low	0	0.0	3	5.6	12	7.9	15	17.9	30	10.3
Total	3	100.0	54	100.0	151	100.0	84	100.0	292	100.0

Chi Square 12.352790 6 Degrees of Freedom p<.05

significantly related to the percentage of actual screening (p<.006) to the right of the site (see Table 7.3). However, it is only the actual screening to the right of the site (screening to the left is not significantly related to satisfaction) which is significantly related to satisfaction. In Table 7.3 the frequency of those expressing dissatisfaction declines from a high of 11.1% when there is less than 25% screening present to the right of the site to a low of 2.7% when there is more than 75% screening. The frequency of those obtaining high satisfaction is greatest when the percentage of screening is greater than 75% (56.0%).

TABLE 7.3

Relationship Between Screening to the Right of the Site and Satisfaction in Non-random Campgrounds

	% of Screening									
Satisfaction	0-25%		26-50%		51-75%		76-100%		Total	
	No	%	No	%	No	%	No	%	No	%
High	8	44.4	13	25.5	7	22.6	42	56.0	70	40.0
Neutral	8	44.4	33	64.7	21	67.7	31	41.3	93	53.1
Low	2	11.1	5	9.8	3	9.7	2	2.7	12	6.9
Total	18	100.0	51	100.0	31	100.0	75	100.0	175	100.0

Chi Square 18.07681 6 Degrees of Freedom p<.006

One reason screening may be significantly related to satisfaction only in non-random campgrounds is the much higher average percentage of screening found in this style of campground as opposed to random campgrounds. Table 7.4 shows that the average percentage of screening in non-random campgrounds is 67.94%, while in random campgrounds the average is only 21.7%.[2] This large difference in percentage of actual screening is due, in large measure, to the age of the random campgrounds and the amount of trampling that has occurred in this time which has removed much of the understory vegetation. However, the effect this difference has on the camping experience can not be determined from these percentages alone and therefore will be analyzed further later in this chapter.

TABLE 7.4

Average Percentage of Inter-Site Screening in Random & Non-random Campgrounds

Non-random	Random
$\bar{x}$ = 67.94%	$\bar{x}$ = 21.7%

The fact that the only significant relationship was between actual screening to the right of the site and satisfaction (in non-random campgrounds) suggests that this relationship may be a function of campground design. In the non-random campground, design dictates that the activity pad for that site be to the right of the camping unit. This is done as all doors on vehicular camping equipment are on the right side of the unit, therefore the activity pad is located so that the camper can step directly out of his unit and on to the area where the maximum activity will take place (i.e., fireplace and picnic table). When campers are active in this area the amount of screening to their left is unimportant as their camping units act as a screening device.[3] However, the only screening between the camper and other campers to his right is provided by the understory vegetation. Therefore, a significant relationship does exist with screening to the right of the site as this is the direction in which their attention is focused when on site.

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[2] These percentages were produced by averaging all the actual percentages of screening to the right of the sites. No site was used more than once, even though more than one interview may have been conducted there, to prevent biasing the sample.

That only three significant relationships exist between camping satisfaction and the actual camping environment suggests that satisfaction is not determined by the actual camping environment. This leads one to believe that the key to understanding camping satisfaction may lie more in camper variations in perception of the camping environment.

C. The Perceived Campground Environment

a) Introduction

As was stated earlier (in Chapter 2), perception can be seen as a cognitive filter through which an individual receives information from the real world, then processes it according to that individual's culture, economy, personality and physiology (Sonnenfeld, 1967, p. 43). Moreover, Sonnenfeld (1967, p. 42) illustrates how perception may influence the way in which an individual responds to a particular environment. He states, "Some (individuals) achieve more in environment, some achieve less, some easily adapt to environmental conditions, others adjust only with difficulty".

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[3] The fact that camping vehicles were used by 78.1% of the sample indicates that the screening provided by the camping vehicle is important in terms of the entire sample.

The same holds true in the camping environment where some individuals achieve higher levels of satisfaction than others, some easily adapt to environmental conditions which are not optimal, while others are not satisfied even in environments the majority find fulfilling. To understand properly this variation in satisfaction it is necessary to understand how the campground is perceived by its users, the campers.

In this study the campground environment was broken down into its component parts to facilitate easier study. The camper was asked to evaluate his location with respect to the following facilities: the distance to, 1) the adjacent sites, 2) the toilets, 3) water supply, 4) the nearest road, 5) the firewood supply, and 6) the major landform attraction. To these questions the respondent could reply, 'too far away', 'just right', or 'too close'. Similar questions were also directed to the respondents on inter-site screening and noise. The following sections are an analysis of how the campers perceive each of these elements of campground design and how these perceptions affect camping satisfaction.

b) Perceived Distance to Adjacent Campsites

Tables 7.5 and 7.6 show the relationship between campers' perceived distance to the adjacent sites and actual distance to the adjacent site to the right in random and non-random campgrounds. These tables reveal only one significant difference between the way the actual distance to the site to the right is perceived. Those located within 10.66 meters of the site

TABLE 7.5

Relationship Between the Distance to the Site to the Right and Perceived Distance to Adjacent Sites in Non-random Campgrounds

	Distance to the Site to the Right							
Perceived	<10.6m		10.6m-22.9m		>22.9m		Total	
Distance	No	%	No	%	No	%	No	%
Too Far	0	0.0	0	0.0	2	2.4	2	1.2
Just Right	12	92.3	55	70.5	71	86.6	138	79.8
Too Close	1	7.7	23	29.5	9	11.0	33	19.1
Total	13	100.0	78	100.0	82	100.0	173	100.0

Chi Square 11.92727 4 Degrees of Freedom p<.01

TABLE 7.6

Relationship Between the Distance to the Site to the Right and Perceived Distance to Adjacent Sites in Random Campgrounds

	Distance to the Site to the Right							
Perceived	<10.6m		10.6m-22.9m		>22.9m		Total	
Distance	No	%	No	%	No	%	No	%
Too Far	0	0.0	0	0.0	1	5.3	1	1.1
Just Right	3	33.3	53	81.5	13	68.4	69	74.2
Too Close	6	66.7	12	18.5	5	26.3	23	24.7
Total	9	100.0	65	100.0	19	100.0	93	100.0

Chi Square 13.93008 4 Degrees of Freedom p<.007

to the right in random campgrounds are much more likely to state they are located 'too close' to the adjacent site (66.7%), while only 7.7% stated the same in non-random campgrounds. Furthermore, those in random campgrounds had a higher propensity for stating that sites located over 22.86 meters away were 'too close' (26.3%) than those in non-random campgrounds (11.0%). No significant relationships existed between perceived distance and actual distance to the adjacent site to the left, and therefore no tables are produced. As was the case with actual screening to the left of the site, the lack of significant relationships here can be attributed to the design and equipment factors mentioned earlier.

The probable reason for the difference in perception of actual distance to the adjacent site to the right between random and non-random campgrounds is related to a factor mentioned above, inter-site screening. One may hypothesize that due to the general lack of understory vegetation, and the resultant lack of inter-site screening in random campgrounds, those located closer than 10.66 meters to the neighbouring site to the right will feel they are 'too close' to their neighbour as there is no barrier between the sites to protect the camper's privacy. Conversely, in non-random campgrounds, where inter-site screening is more plentiful, those located less than 10.66 meters from the neighbouring site to the right have a much higher probability of having some screening between their sites. This screening has the effect of insulating these campers against the presence of those located near their site. As a result, this group has a lower propensity for stating they are 'too close' to the adjacent site to the right because, due to the presence of screening, they will not feel as psychologically encroached upon[4] as those in random campgrounds.

Strong relationships also exist between perceived distance to adjacent sites and camping satisfaction in both random and non-random campgrounds. Data on these relationships illustrate that a high percentage of campers, in both styles of campgrounds, who perceive they are located 'too close' to the neighbouring sites have much lower levels of satisfaction.[5] However, the levels of satisfaction differ markedly between random and non-random campgrounds. Table 7.7 indicates that in non-random campgrounds, of those who perceived they were 'too close' to the adjacent sites, 22% still managed to attain high levels of satisfaction, while 14.5% stated they were dissatisfied with their experience. Table 7.8 shows that in random campgrounds only 12.1% of those stating they were 'too close' to the adjacent sites were highly satisfied while 29.3% were totally dissatisfied with their stay. This resulted in a mean satisfaction score of 2.172 for those who perceived they were 'too close' to the adjacent sites in random campgrounds as opposed to a score of 1.927 for the similar group in non-random campgrounds.

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[4] Psychological encroachment refers to an individual's personal space and how, when that personal space is invaded, he feels encroached upon. In the campground environment it appears that campers have a 'camping space' which is the amount of space necessary to maintain a high quality camping experience. When this space is invaded, or encroached upon, by other campers, this can be seen as an encroachment on that camper's psychological privacy.

[5] The mean satisfaction score for the total sample who perceived they were located 'too close' to the adjacent sites was 2.071 as opposed to 1.695 for those who perceived the distance to be just right.

TABLE 7.7

Relationship Between Perceived Distance to Adjacent Sites and Satisfaction in Non-random Campgrounds

	Perceived Distance							
	Too Far		Just Right		Too Close		Total	
Satisfaction	No	%	No	%	No	%	No	%
High	1	50.0	78	44.8	9	22.0	88	40.6
Neutral	1	50.0	86	49.4	26	63.4	113	52.1
Low	0	0.0	10	5.7	6	14.6	16	7.4
Total	2	100.0	174	100.0	41	100.0	217	100.0

Chi Square 9.27817 4 Degrees of Freedom p<.05

TABLE 7.8

Relationship Between Perceived Distance to Adjacent Sites and Satisfaction in Random Campgrounds

	Perceived Distance							
	Too Far		Just Right		Too Close		Total	
Satisfaction	No	%	No	%	No	%	No	%
High	0	0.0	49	30.4	7	12.1	56	25.5
Neutral	1	100.0	98	60.9	34	58.6	133	60.5
Low	0	0.0	14	8.7	17	29.3	31	14.1
Total	1	100.0	161	100.0	58	100.0	220	100.0

Chi Square 19.20250 4 Degrees of Freedom p<.0007

The chief reason for the higher percentages of dissatisfied campers who perceived they were 'too close' to the adjacent sites in random campgrounds was the encroachment by others on to the camper's psychological camping space. Tables 7.9 and 7.10 show those who felt psychologically encroached upon[6] cross-tabulated with satisfaction in random and non-random campgrounds. Table 7.9 shows that the percentage of those obtaining high satisfaction is greater among those who did not feel psychologically encroached upon (45.1%) as opposed to those who did feel encroached upon (22.5%). As one would expect, a difference does exist between those stating they were psychologically encroached upon and obtaining low levels of satisfaction (15.0%) and those who were not encroached upon (5.7%), however, this difference is not great.

As Table 7.10 indicates, those in random campgrounds who felt they were encroached upon have generally much lower levels of satisfaction than those not encroached upon. The most important difference exists between those who felt encroached upon and who obtained low levels of satisfaction (30.0%) and those who did not feel encroached upon and were dissatisfied (8.7%). This indicates that invasion of a camper's "camping space" may be one of the reasons levels of satisfaction are lower in random campgrounds.

c) Perceived Screening

When examining the relationship between perceived screening and camping satisfaction in random and non-random campgrounds (Tables 7.11 and

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[6] Responses which indicated a camper felt encroached upon were gleaned from question 10(A) of the questionnaire. An example of a response which indicates encroachment would be: too crowded, can hear and see neighbours, too close, etc.

TABLE 7.9

Relationship Between Those Feeling Psychologically Encroached Upon and Satisfaction in Non-random Campgrounds

	Those Feeling Encroached Upon					
	Yes		No		Total	
Satisfaction	No	%	No	%	No	%
High	9	22.5	79	45.1	88	40.9
Neutral	25	62.5	86	49.1	111	51.6
Low	6	15.0	10	5.7	16	7.4
Total	40	100.0	175	100.0	215	100.0

Chi Square 8.97573 2 Degrees of Freedom p<.01

TABLE 7.10

Relationship Between Those Feeling Psychologically Encroached Upon and Satisfaction in Random Campgrounds

	Those Feeling Encroached Upon					
	Yes		No		Total	
Satisfaction	No	%	No	%	No	%
High	4	8.0	49	30.4	53	25.1
Neutral	31	62.0	98	60.9	129	61.1
Low	15	30.0	14	8.7	29	13.7
Total	50	100.0	161	100.0	211	100.0

Chi Square 20.25168 2 Degrees of Freedom p<.00001

TABLE 7.11

Relationship Between Perceived Screening and Satisfaction in Non-random Campgrounds

	Perceived Screening							
	Too Much		Just Right		Too Little		Total	
Satisfaction	No	%	No	%	No	%	No	%
High	3	23.1	78	45.6	7	22.6	88	40.9
Neutral	9	69.2	85	49.7	19	61.3	113	52.6
Low	1	7.7	8	4.7	5	16.1	14	6.5
Total	13	100.0	171	100.0	31	100.0	215	100.0

Chi Square 11.19456 2 Degrees of Freedom $p<.02$

TABLE 7.12

Relationship Between Perceived Screening and Satisfaction in Random Campgrounds

	Perceived Screening							
	Too Much		Just Right		Too Little		Total	
Satisfaction	No	%	No	%	No	%	No	%
High	2	40.0	41	31.8	13	14.9	56	25.3
Neutral	2	40.0	78	60.5	54	62.1	134	60.6
Low	1	20.0	10	7.8	20	23.0	31	14.0
Total	5	100.0	129	100.0	87	100.0	221	100.0

Chi Square 15.35972 4 Degrees of Freedom $p<.004$

7.12) two striking differences emerge. First, the most striking difference lies in the fact that only 14.4% (31 of 215) of those in non-random campgrounds perceive there to be a lack of understory vegetative cover as opposed to 39.4% (87 of 221) in random campgrounds. The second difference is the generally low levels of satisfaction obtained by those perceiving a lack of screening in random campgrounds (Table 7.12). Of those perceiving a lack of screening in non-random campgrounds 22.6% were still highly satisfied while 16.1% were dissatisfied, while in random campgrounds only 14.9% were highly satisfied and 23.0% were dissatisfied.

These data aid in illustrating the importance of screening to camping satisfaction. As was mentioned previously, the mean amount of screening found in non-random campgrounds is considerably greater than that found in random campgrounds. It appears, based on data in Tables 7.11 and 7.12 that campers notice the lack of screening in random campgrounds as they perceive a deficiency in inter-site screening more frequently in random than non-random campgrounds. The fact that those who perceive this lack of screening in random campgrounds are also less satisfied with their camping experience attests to the influence screening has on satisfaction.

d) Satisfaction and Perceived Distance to Campground Support Facilities

This section deals with how camping satisfaction is affected by the perceived distances to the support facilities in the campground. These support facilities will be dealt with in the following order: i) perceived distance to the campground road; ii) the perceived distances to the following facilities are grouped together for ease of analysis; they are, perceived distance to toilets, water facility, and firewood.

i) The Perceived Distance to the Campground Road

Perceived distance to the campground road is significantly related to satisfaction in random campgrounds only (see Table 7.13). Table 7.13 shows the relationship between perceived distance to the road and satisfaction in random campgrounds. Of those who perceive the road to be 'too close' to their site 18.3% had dissatisfying camping experiences as opposed to 12.5% who stated they were located 'just right' in relationship to the road. More importantly, those who perceive they are located 'too close' to the road have a much lower frequency of high satisfaction than those who perceive their location to be 'just right' (13.3% as opposed to 30.0%).

TABLE 7.13

Relationship Between Perceived Distance to the Campground Road and Satisfaction in Random Campgrounds

	Perceived Distance to Road[1]					
	Just Right		Too Close		Total	
Satisfaction	No	%	No	%	No	%
High	48	30.0	8	13.3	56	25.5
Neutral	92	57.5	41	68.3	133	60.5
Low	20	12.5	11	18.3	31	14.1
Total	160	100.0	60	100.0	220	100.0

Chi Square 6.66278 2 Degrees of Freedom $p<.03$

[1] No campers mentioned 'too far', therefore it is omitted from the table.

These data reveal that those who perceive they are located 'too close' to the road in random campgrounds have generally lower levels of satisfaction than those who perceive their location to be 'just right'. However, this does not explain the fact that satisfaction is only significantly related to perceived distance to the road in random and non non-random campgrounds. Actual distances to the roads were cross-tabulated against perceived distances and no significant relationships emerged (therefore no tables were produced). Therefore, if actual distance does not cue the respondents then some other factor must be intervening to affect perceived distance. That factor appears to be screening.

In non-random campgrounds, where there is a much higher percentage of screening, the perceived distance to the road is unimportant. However, in random campgrounds, where there is a much lower percentage of mean screening (see Table 7.4) a significant relationship does exist between perceived distance to the road and camping satisfaction. This suggests that if campers can see (or possibly feel they can be seen) activity on the road then this will have a detrimental effect on satisfaction. However, as is the case in non-random campgrounds, if the road is well screened from the activity area of the site it does not matter how far the camper is from the road because he is isolated from visual contact with it.

ii) Perceived Distance to the Support Facilities

Analysis indicates that no significant relationships exist between the perceived distance to the support facilities and camping satisfaction in non-random campgrounds. However, significant relationships do emerge between the perceived distances to water supply and firewood and satisfaction in random campgrounds (see Tables 7.14 and 7.15).

Table 7.14 illustrates that the propensity for dissatisfaction increases if the water facility is perceived to be located 'too far' away in random campgrounds. Of those who felt they were located 'too far' from the water supply 25.6% were dissatisfied with their experience, while only 12.0% who felt they were located 'just right' were dissatisfied. Table 7.15 shows the same propensity for dissatisfaction to increase when campers perceive the distance to the firewood supply to be 'too far'. Of those who perceived the distance to be 'too far' 19.4% were dissatisfied, while only 9.8% who perceived the distance to be 'just right' were dissatisfied.

These results are more meaningful when considered in conjunction with the total lack of significant relationships between perceived distance to these facilities and satisfaction in non-random campgrounds. The lack of significant relationships in non-random campgrounds may be the result of these facilities being located regularly throughout the campground. In random campgrounds the dissatisfaction with these facilities results from there not being enough of these facilities, and what facilities do exist are not being centrally located. This skewed location means that many of the campers are a considerable distance from these facilities and therefore results in them perceiving the distance to these facilities as being 'too far'. For example, the southside camping area at Moonshine (random camping) had only one water outlet which was located near the entrance to the campground. This meant that those not located near the entrance had to carry water up to 381 meters back to their site. The same was true of

TABLE 7.14

Relationship Between Perceived Distance to Water Supply and Satisfaction in Random Campgrounds

	Perceived Distance							
	Too Far		Just Right		Too Close		Total	
Satisfaction	No	%	No	%	No	%	No	%
High	9	20.9	35	26.3	0	0.0	44	25.0
Neutral	23	53.5	82	61.7	0	0.0	105	59.7
Low	11	25.6	16	12.0	1	100.0	27	15.3
Total	43	100.0	133	100.0	1	100.0	176	100.0

Chi Square 0.39 4 Degrees of Freedom p<.05

TABLE 7.15

Relationship Between Perceived Distance to Firewood Supply and Satisfaction in Random Campgrounds

	Perceived Distance					
	Too Far		Just Right		Total	
Satisfaction	No	%	No	%	No	%
High	14	19.4	36	29.3	50	25.6
Neutral	44	61.1	75	61.0	119	61.0
Low	14	19.4	12	9.8	26	13.3
Total	72	100.0	123	100.0	195	100.0

Chi Square 4.90663 2 Degrees of Freedom p<.08

the firewood supply at Williamson where the firewood stack was located .80 km east of the campground. This meant an excessively long trip to obtain firewood and led to campers perceiving the distance as being 'too far'. However, in non-random campgrounds, where these facilities are evenly distributed, campers were never forced to travel too far to use these facilities and therefore these perceived distances did not have a significant impact on satisfaction.

No significant relationships existed between perceived distance to toilets and camping satisfaction in either random or non-random campgrounds. This lack of relationships is the result of toilet facilities being located evenly throughout both styles of campgrounds which means that campers are not forced to travel long distances to use this facility. Because there is little inconvenience resulting from toilet location its impact on satisfaction is minimal.

e) Satisfaction and the Perceived Distance to the Major Landform Attraction in the Campground

The perceived distance to the major landform attraction in the campground is an important component part of campground design as it usually serves as a focal point of activity for campers while they are in the campground. In six of the seven campgrounds surveyed the major landform attraction is a lake which provides either swimming, fishing or boating opportunities. At Jarvis Bay, due to physical constraints mentioned in Chapter 4, the major attraction there is a lakeshore trail rather than the lake itself.

The perceived distance to the major landform attraction was found to be significantly related to camping satisfaction (see Table 7.16). Table 7.16 shows the relationship between the perceived distance to the major landform attraction and satisfaction in all the survey campgrounds. From this table it is evident that if the respondents perceive the location of the major landform attraction to be 'just right' they will probably be more satisfied than if they feel either 'too far' or 'too close'.

TABLE 7.16

Relationship Between Perceived Distance to the Major Resource Attraction and Satisfaction

	Perceived Distance							
	Too Far		Just Right		Too Close		Total	
Satisfaction	No	%	No	%	No	%	No	%
High	30	24.8	104	38.0	0	0.0	134	33.5
Neutral	74	61.2	146	53.3	3	60.0	223	55.8
Low	17	14.0	24	8.8	2	40.0	43	10.7
Total	121	100.0	274	100.0	5	100.0	400	100.0

Chi Square 13.20172 4 Degrees of Freedom $p<.01$

Most campers with children felt that the location of the camping facility in relation to a body of water presents a major dilemma to campground planners. They felt that a trade-off must be made between a high degree of accessibility to the water so that children do not have to be driven to the lake, but also if located too close to the lake parents worry about children wandering off on their own near the lake.

f) Campground Noise and Satisfaction

While campground noise is not an element of campground design its causes may be the result of campground design. When the frequencies of those perceiving the campground to be too noisy in random and non-random campgrounds are compared one notes that the frequency of those perceiving the campground as being 'too noisy' is 2.54 times as great in random than in non-random campgrounds (28.2% as opposed to 11.1% or 24 of 216). This indicates that campers perceive the random campground environment to be noisier than the non-random campground environment.

The perceived noise level was then cross-tabulated against camping satisfaction controlling for randomness of campground design. It was found that while a highly significant relationship (p<.00001) existed for random campgrounds (Table 7.17) no such significant relationship existed in non-random campgrounds (p<.24). Table 7.17 shows that as the perceived noise

TABLE 7.17

Relationship Between Perceived Noise and Satisfaction in Random Campgrounds

	Perceived Noise							
	Too Noisy		Just Right		Too Quiet		Total	
Satisfaction	No	%	No	%	No	%	No	%
High	4	6.5	52	33.5	0	0.0	56	25.5
Neutral	37	59.7	93	60.0	3	100.0	133	60.5
Low	21	33.9	10	6.5	0	0.0	31	14.1
Total	62	100.0	155	100.0	3	100.0	220	100.0

Chi Square 38.39310 4 Degrees of Freedom p<.00001

is found to be 'too noisy' there is a marked decrease in those obtaining high levels of satisfaction in comparison with those who felt the noise level to be 'just right' (6.5% as opposed to 33.5%). Concurrently, there is also an increase in the percentage of those having dissatisfying experiences if the noise level is perceived to be 'too noisy' as opposed to 'just right' (33.9% as opposed to 6.5%).

The comparison of the frequencies of those perceiving the campground as being 'too noisy' between random and non-random campgrounds, and Table 7.17 indicate that random campgrounds are perceived as being noisier than non-random campgrounds and that this noise has a detrimental effect on camping satisfaction. The higher awareness of noise in random campgrounds is most likely the direct result of the randomness of these campgrounds. The ability of campers to congregate into groups (this is the result of the lack of physical barriers and no designated sites) allows them to camp in a social, party-like atmosphere. When this occurs, the noise created by these groups has a negative effect on those who are not pursuing the same type of social goals as those making the noise. This excessive noise constitutes a psychological encroachment on those not making the noise and as such this noise can be considered an invasion of a camper's "camping space".

g) Ranking the Variables by Their Effect on Camping Satisfaction

In an attempt to understand which elements of the perceived campground environment had the greatest effect on camping satisfaction the construction of a rank-ordering of relationships was undertaken. This was based upon contingency coefficients which give an indication of the strength of the relationship between two cross-tabulated variables, with a higher index indicating a stronger relationship. In this case the relationships were between satisfaction, perceived distance to facilities and major landform attraction, perceived screening, and perceived noise.

TABLE 7.18

Rank Order of Perception Variables
by Their Effect on Satisfaction
(Based on Contingency Coefficients)

Rank	Variable	Contingency Coefficient
1.	Perceived Noise	.31999
2.	Perceived Screening	.27043
3.	Perceived Distance to Adjacent Sites	.25279
4.	Perceived Distance to Road	.19489
5.	Perceived Distance to Major Attraction in Campground	.17875
6.	Perceived Distance to Firewood	.13155
7.	Perceived Distance to Water Facility	.10029
8.	Perceived Distance to Toilet	.04156

Table 7.18 shows that perceived noise had the greatest effect on satisfaction of all the variables listed. Of variables pertaining to campground design perceived screening and perceived distance to adjacent sites rank high. Other variables having moderate effect on satisfaction are perceived distance to landform attraction and perceived distance to

road. Support facilities, firewood, water and toilets, ranked very low indicating that their location in the campground is not crucial for providing satisfying camping experiences.

h) The Relationship Between Perceived Distance and Perceived Screening

To understand fully the impact of screening on campers' on-site experience it is necessary to look at its relationship to perceived distance to adjacent sites. In Tables 7.19 and 7.20 perceived distance to adjacent sites was cross-tabulated against perceived screening in random and non-random campgrounds. Two important factors emerge when comparisons are made between these cross-tabulations; 1) in both tables a very high percentage of those who perceive the distance to the adjacent site to be 'just right' also perceive screening to be 'just right' (87.8% in non-random campgrounds and 82.0% in random campgrounds), and; 2) there is a distinct difference between the two styles of campgrounds in the percentages of those who perceive they are 'too close' to neighbouring sites and also perceive the inter-site screening to be insufficient (non-random campgrounds = 9.26% or 20 of 216; random campgrounds = 16.36% or 36 of 220).

These tables indicate that if screening is perceived to be 'just right' there is a very high probability that the perceived distance will also be 'just right'. These tables also indicate that perceived distance is much more sensitive to lack of screening in non-random campgrounds. Due to the much higher percentage of screening ($\bar{x}$ = 69.94%) in non-random campgrounds it appears that if there is an absence of screening on a particular site its effect on perceived distance is magnified.

TABLE 7.19

Relationship Between Perceived Screening and Perceived Distance to Adjacent Sites in Non-random Campgrounds

Perceived Distance	Too Much No	Too Much %	Just Right No	Just Right %	Too Little No	Too Little %	Total No	Total %
Too Far	1	7.7	1	0.6	0	0.0	2	.9
Just Right	12	92.3	151	87.6	11	35.5	174	80.6
Too Close	0	0.0	20	11.6	20	64.5	40	18.5
Total	13	100.0	172	100.0	31	100.0	216	100.0

Chi Square 58.32933 4 Degrees of Freedom p<.00001

TABLE 7.20

Relationship Between Perceived Screening and Perceived Distance to Adjacent Sites in Random Campgrounds

Perceived Distance	Too Much No	Too Much %	Just Right No	Just Right %	Too Little No	Too Little %	Total No	Total %
Too Far	0	0.0	1	.8	0	0.0	1	.5
Just Right	5	100.0	105	82.0	51	58.6	161	73.2
Too Close	0	0.0	22	17.2	36	41.4	58	26.4
Total	5	100.0	128	100.0	87	100.0	220	100.0

Chi Square 17.94733 4 Degrees of Freedom p<.001

Screening, perceived distance to adjacent sites, and campground design were used as independent variables in a breakdown analysis (Fig. 7.1) so that the effect of these variables on the campers' mean level of satisfaction could be ascertained. This breakdown reveals two significant pieces of information. First, the breakdown confirms that the most satisfied group of campers are those who perceive both screening and distance to adjacent sites to be 'just right' ($\bar{x}$ = 1.625). However, a difference does exist between the mean scores for random ($\bar{x}$ = 1.705) and non-random campgrounds ($\bar{x}$ = 1.570). This difference can be seen as a product of the difference in the mean percentage of screening in the two styles of campgrounds. The lower percentage of screening in random campgrounds means less privacy for the campers, hence a higher propensity for dissatisfaction.

The second important fact conveyed by Fig. 7.1 is the much higher level of dissatisfaction among campers in random campgrounds who perceive the screening and site spacing to be sub-optimal compared with campers in non-random campgrounds (random campgrounds $\bar{x}$ = 2.278, non-random campgrounds $\bar{x}$ = 1.950). Once again, this difference reflects the effect that lack of screening has on those in random campgrounds. Campers in random campgrounds appear to need some screening to ensure privacy because, due to the nature of random campgrounds, campers are able to pull their units in very close to other campers as a result of the lack of understory vegetation.[7] This

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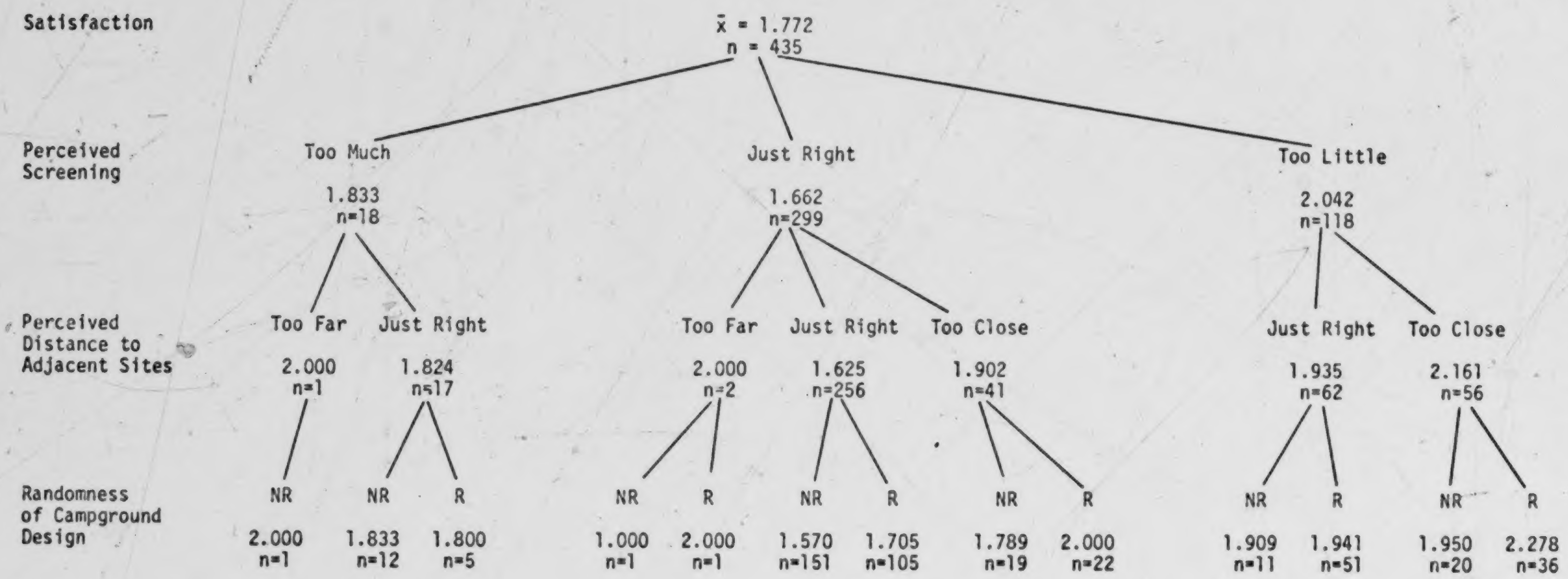
[7] It should be noted that campground vegetation, which acts as inter-site screening, also functions as a physical barrier restricting the location of camping units.

FIGURE 7.1

Breakdown of Satisfaction by Perceived Screening, Perceived Distance to Adjacent Sites, and Randomness of Campground Design


Satisfaction
Perceived Screening
Perceived Distance to Adjacent Sites
Randomness of Campground Design
x̄ = 1.772
n = 435
Too Much
1.833
n=18
Just Right
1.662
n=299
Too Little
2.042
n=118
Too Far
2.000
n=1
Just Right
1.824
n=17
Too Far
2.000
n=2
Just Right
1.625
n=256
Too Close
1.902
n=41
Just Right
1.935
n=62
Too Close
2.161
n=56
NR
2.000
n=1
NR
1.833
n=12
R
1.800
n=5
NR
1.000
n=1
R
2.000
n=1
NR
1.570
n=151
R
1.705
n=105
NR
1.789
n=19
R
2.000
n=22
NR
1.909
n=11
R
1.941
n=51
NR
1.950
n=20
R
2.278
n=36

NR = Non-random
R = Random

p<.00001

lack of screening may result in a very real impingement of the camper's social space (Hall, 1969, p. 122) thereby resulting in dissatisfaction. However, in non-random campgrounds campers are constrained as to how close they can locate to neighbouring sites due to the individual sites provided for each unit. Therefore, even if screening is minimal, the camper is still forced to be located outside other campers' social space (approximately 7.6 meters), thereby lowering the propensity of this group for total dissatisfaction due to lack of privacy.

In summation it has been shown that the actual distance to adjacent sites is perceived differently by campers in random and non-random campgrounds. This difference in perception is due to the larger amounts of inter-site screening which exist in non-random campgrounds. This larger amount of screening ensures privacy from other sites, a luxury not afforded to many campers in random campgrounds.

D. Summary and Conclusions

By way of summation it is now possible to make a number of statements on how the campground environment and the campers' perceptions of that environment interact.

1) It was found that actual distances were not important in explaining variation in camping satisfaction. This indicated that this element of the campground environment did not determine camping satisfaction.

2) Table 7.18 indicated that not all perception variables had the

same effect on camping satisfaction. The three most important perception variables were perceived distance to adjacent sites, perceived screening, and perceived noise.

3) It was found that campers were much more aware of the distance to the neighbouring site to the right and the inter-site screening to the right than to the left. This is due to both campground and recreation vehicle design.

4) Campers have a higher propensity for feeling psychologically encroached upon in random rather than non-random campgrounds. This is due to the lack of inter-site screening in random campgrounds which does not allow these campgrounds to afford campers the privacy they desire.

5) Analysis indicates that perceived distance to adjacent sites is modified by perceived screening. This, in part, accounts for variation in satisfaction between the two styles of campgrounds as the average percentage of screening is much higher in non-random campgrounds than random campgrounds. Therefore, campers in non-random campgrounds do not feel as crowded as those in random campgrounds and as a result are more satisfied.

6) Screening appears to be an important factor in determining how campers perceive their location relative to the road. The absence (or lack) of screening, such as in random campgrounds, results in campers having a higher propensity for stating they are 'too close' to the road.

In conclusion, this chapter has illustrated the importance of the campers' perceptions in understanding camping satisfaction. It was shown that perceived screening is the one element of campground design which affects satisfaction the most (refer to Table 7.18). Not only does perceived screening affect satisfaction, but it also affects how campers perceive their location relative to the adjacent campsites and the road, the two elements of the campground environment which effect satisfaction the most after screening. The fact that there is such a wide variation in screening between the two styles of campgrounds leads one to believe that screening may be the variable which explains a large part of the variation in satisfaction between random and non-random campgrounds.

CHAPTER EIGHT

RECOMMENDATIONS FOR CAMPGROUND DESIGN MODIFICATION

A. Introduction

There is an increasing demand by those charged with managing recreational areas to have recreation research findings presented in, what is to them, a more meaningful form (Cottrell, 1976; Ware, 1976). "Meaningful form" refers to taking the academic jargon out of the findings and, as Cottrell (1976, p. 7) says, ". . . putting yourself out on a limb" with recommendations which may be of substantive help to the practitioners. This chapter is an attempt to do that. Academically speaking, the objectives of Chapter 2 have either been confirmed or rejected in Chapters 5 through 7. However, it is now appropriate to make some practical statements based on these findings.

B. Random and Non-random Campgrounds

The most conclusive evidence in the preceding three chapters illustrates how random campgrounds do not provide levels of camping satisfaction as high as non-random campgrounds. Differences in camping satisfaction were also detected when the component elements of the two styles of campgrounds were analyzed, also indicating that non-random campgrounds provide higher levels of camping satisfaction. The relationship between satisfaction and campground design was strengthened and reaffirmed by the use of control variables. In every instance satisfaction was consistently higher in non-random as opposed to random campgrounds.

If one of the goals of Alberta Provincial Parks is to provide satisfying camping opportunities they should move towards closing the random campgrounds and replacing them with newer, non-random campgrounds of various levels of intensity of development. Redesigning of random campgrounds is impractical at this time due to the lack of understory vegetation. However, if the random campground sites were given five to ten years to rehabilitate themselves many would once again be ideal camping locations. Therefore, closing random campgrounds, and replacing them with other camping opportunities, as quickly as budgetary constraints allow, is well advised.

C. Inter-site Screening

Chapter 7 has shown inter-site screening to be the element of the campground design most highly related to camping satisfaction. New campground developments (and campground renovations) should attempt to provide at least 70% screening between sites. The need to provide this screening component will affect the locating of new campgrounds as locations should only be considered if the potential for a high percentage of inter-site screening exists.

When siting these new developments the hardiness of the understory vegetation is critical, for it is undesirable to construct a campground and provide a screening component which cannot withstand intensive campground use. After a number of years this results in a campground devoid of screening, a proven integral part of the campground environment and camping satisfaction. Therefore, such a campground would not be capable of providing the consistently high levels of satisfaction which are possible when inter-site screening is present.

Inter-site screening is also important as it reduces the amount of land necessary for a campground development. Screening has the effect of ameliorating the effects of lack of distance between sites. For example, if a location is available for campground development where it would be possible to provide 100% screening sites could be located closer together than in an area of 50% screening without there being an appreciable loss of camping satisfaction.[1] Therefore, the location of the campground in an area capable of providing a high percentage of inter-site screening will have the effect of saving land by reducing the amount of space necessary for campground development.

D. Site Spacing

Chapter 7 also demonstrated the importance of inter-site spacing to camping satisfaction. While it is impossible, based on the methodology employed in this study, to make a specific statement on what the optimum distance for inter-site spacing is, a number of general statements can be made.

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[1] The planner must be aware that as distance between sites decreases the propensity for campers to trample the vegetation between sites increases. Therefore, if sites are being located closer together, the understory vegetation should be of such a nature that it will prohibit trampling. Otherwise, after a number of years, the screening will be removed and the result is a crowded campground.

1) As distance between sites decreases (below approximately 21.3 meters) satisfaction also decreases. Therefore, it is recommended that sites should be a minimum of 15 - 23 meters apart. The figure of 15 meters was chosen as the minimum figure for practical reasons. It was found that satisfaction began to decline if the sites were closer than 23 meters. However, it was also found that campers did not start exhibiting total dissatisfaction until sites were 12.2 meters, or less, apart. Therefore, in situations where it is impossible, from a practical standpoint, to space sites more than 23 meters apart, a spacing of 15 meters can be utilized with only minimal effect on camping satisfaction.

2) Inter-site screening ameliorates the effects of distance. Therefore, the spacing of sites in new campground developments should reflect the amount of screening that is available. That is, as screening decreases, the distance between sites should increase. Conversely, a high proportion of screening could be matched by an increasingly denser development.

E. The Location of the Campground in Relationship to Water-based Recreation

In Chapter 4 it was mentioned that every campground had water-based recreation activities available with the exception of Jarvis Bay. To many campers participation in water-based recreation activities is an important reason for travelling to a campground (Lime, 1971). The spatial relationship between the campground (and the individual sites) and the water is of great importance to the camper.[2] The results and analysis presented in Chapter 7 indicated that all the sites in the campground should not be located more than an easy walk from the water. Campers with young children were adamant about their dislike of having to drive their children to the beach in areas where it was too far to walk.

The campground should also be designed to ensure that every camper using the facility has equal access to the waterfront. Sites should not be distributed so that a few campers are located right on the water's edge thereby forcing other campers to traverse these sites to gain access to the water. Such a layout is dissatisfying to those who do not have adequate access to the water and those on the waterfront who are having their sites traversed. This problem can be resolved by leaving an open area, or 'common green' along the shoreline, and access corridors past other sites to the common shoreline.

F. Campground Roads

Campers, on the whole, were quite explicit when referring to how they wished to be located relative to the nearest campground road. They did not want to be 'too close' to the road for four reasons: 1) lack of on-site privacy, 2) possible danger to children, 3) it makes the site too dusty, and 4) it creates too much on-site noise. The answer to these problems are twofold: 1) provide a judicious amount of space between the sites' activity area and the road (approximately 15 - 18 meters), and 2) provide adequate screening between the activity area and the road. These two recommendations would have the effect of protecting the campers' privacy while providing a screen to intercept both noise and dust.

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[2] This was referred to under the heading of "major landform attraction" in Chapter 7. It was found that the campers' perceived location relative to the major landform attraction was significantly related to satisfaction.

G. Campground Support Facilities

The location of campground support facilities (water, washrooms, and firewood) were found not to be of critical importance to camping satisfaction. It appears that rational location of these facilities to provide maximum access is sufficient to please most campers.

With regards to toilet facilities, more important than location is the cleanliness of these facilities. Campers are very quick to become annoyed, and even disgusted, if it does not appear that the toilet facilities are being kept up. If the facility is well maintained campers were also quick to praise this condition. Provincial Parks should be aware that the cleanliness of these facilities (and the whole campground) has a major effect upon how the parks system itself is perceived. When campers encountered clean facilities praise for the whole system was forthcoming; however, if the campground was unclean, campers felt this to be a reflection of the entire system.

H. Noise

While noise may not totally be a design consideration it does warrant attention here. If it is management's intention to maintain quiet hours after 11:00 p.m. some future design modifications may be taken into consideration. Random campgrounds were, according to the campers, consistantly noisier than non-random campgrounds. This is due to the ability of campers to set numerous camping units on one site's area, thereby producing a party atmosphere.

The planner must understand that these small groups are noise generators, noise which often bothers single family campers. With this small group camping becoming a legitimate goal for campground users, planners should now be thinking of segregating these groups into areas designated for multiple-unit use. This would have the effect of placing the dominant noise generators together with other campers having similar social goals.

I. Segregation of Groups with Different "Camping Spaces"

The above example has demonstrated how groups of campers may differ in their "camping space" requirements. These requirements may differ along many speculated dimensions, a few of which may be: 1) a difference in "camping spaces" based upon the social-environmental orientation of the camper, 2) differences in social orientation (as in the example above), or 3) differences based on the type of equipment used.

This study does have preliminary data available to test for differences in the perception of the campground environments by those using either camping vehicles or tent camping equipment. This relationship is interesting to study as it combines aspects of the social-environmental differences in campground perception as well as different demands made on the campground.

facility itself by the two different types of equipment. Those using tents may be seen as having a more environmentally oriented attitude towards camping while those using camping vehicles are more socially oriented. Figure 8.1 illustrates, through the use of a breakdown analysis, how satisfaction varies between these two groups when perceived distance to adjacent sites and perceived screening are controlled for.

The results in Figure 8.1 show that tenters have consistantly lower levels of satisfaction than those using wheeled camping vehicles. In part, these consistantly lower satisfaction scores by tenters may be the result of two groups with different "camping spaces" using the same camping facility.[3] While these results do not indicate that it may be possible to locate these two groups in different types of camping environments so that both groups would obtain optimum satisfaction. This would require construction of spatially discrete camping areas which would allow these two groups of campers a better chance to pursue their camping goals.

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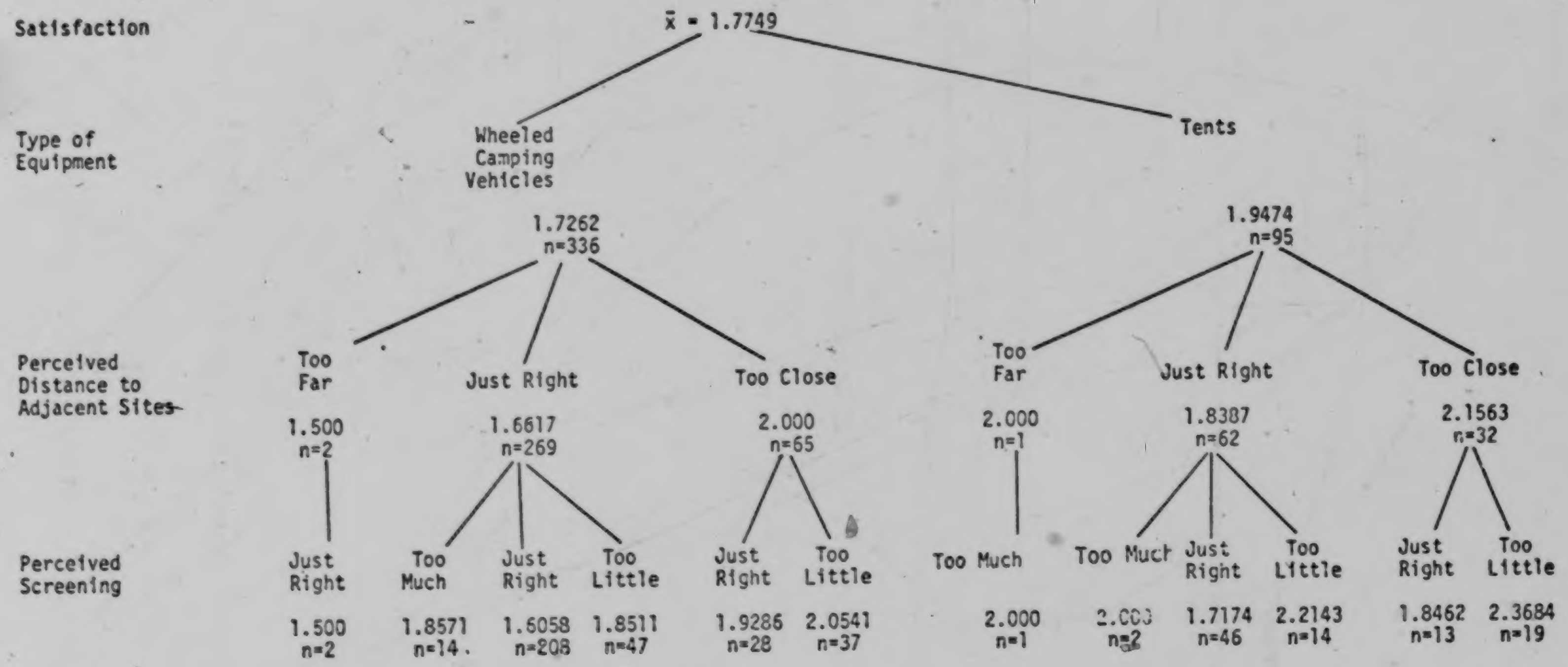
[3] The author is aware that designated tenting areas exist in some campgrounds (e.g., Pigeon Lake), but these tenting areas are not spatially discrete from the main campground, and therefore can still be considered part of the main campground.

FIGURE 8.1

Breakdown of Satisfaction by Type of Equipment Used, Perceived Distance to Adjacent Sites, and Perceived Screening


Satisfaction
Type of Equipment
Perceived Distance to Adjacent Sites
Perceived Screening
x̄ = 1.7749
Wheeled Camping Vehicles
1.7262 n=336
Tents
1.9474 n=95
Too Far
1.500 n=2
Just Right
1.6617 n=269
Too Close
2.000 n=65
Too Far
2.000 n=1
Just Right
1.8387 n=62
Too Close
2.1563 n=32
Just Right
1.500 n=2
Too Much
1.8571 n=14
Just Right
1.6058 n=208
Too Little
1.8511 n=47
Just Right
1.9286 n=28
Too Little
2.0541 n=37
Too Much
2.000 n=1
Too Much
2.000 n=2
Just Right
1.7174 n=46
Too Little
2.2143 n=14
Just Right
1.8462 n=13
Too Little
2.3684 n=19

p<.0021

CHAPTER NINE

CONCLUSIONS

A. Introduction

The purpose of this chapter is four fold. First, by way of review, the important findings of the thesis will be presented. This will be followed by a review of the methodological procedures employed in this study with a view to making possible recommendations for changes in these techniques. Third, a discussion of the findings of the thesis will be undertaken, to be followed by the fourth topic, directions for future research.

B. Summary of Findings

It was found that camping satisfaction varied spatially among the seven campgrounds surveyed. The variations in satisfaction were even more distinct between random and non-random campgrounds as campers in non-random campgrounds obtained generally higher levels of satisfaction than those in random campgrounds. Of importance was the fact that there was no significant variation in satisfaction based on the level of development intensity in the campground survey. The lack of effect on satisfaction by level of facility development was probably the result of all facilities surveyed offering approximately the same type of camping experience.

To gain an understanding of what caused the variation in satisfaction among the seven campgrounds, and also between random and non-random campgrounds, the following five sets of variables were introduced into the analysis: 1) profile data, 2) previous experience variables, 3) the explicit likes and dislikes of the campers, 4) actual campground environment variables, and 5) perceived campground environment variables.

a) Profile Variables

Initial data analysis of the relationships between the profile data on the campers and satisfaction, and later analyses employing control variables, indicated that profile variables had little or no direct effect on camping satisfaction and therefore did little to explain variation in satisfaction. Many researchers have found that while profile variables may be adequate indicators of camping preference, they have little or no powers of explanation in the area of on-site recreation behaviour. Due to the lack of relationships between profile variables and camping satisfaction further analysis with profile variables was discontinued.

b) Previous Experience Variables

It was found that campers who had previous experience with the campground in which they were interviewed were more likely to be satisfied than those who did not have this previous experience. These findings were seen as a partial confirmation of the familiarity hypothesis as related by Burch (1969), Mercer (197[illegible]), and Knopp (1972). These findings also held constant when controlled for randomness of campground design, thereby validating the results and strengthening their interpretation. However, in this second level of analysis it was found that random campgrounds had consistantly lower levels of satisfaction, even if the respondents had previous experience with the surveyed campground. This analysis began to indicate the magnitude of the difference in camping satisfaction provided by random and non-random campgrounds.

c) Explicit Likes and Dislikes of the Campers

It was now clear that those camping in non-random campgrounds were more likely to obtain higher levels of satisfaction than those in random campgrounds. An analysis of campers' explicit likes and dislikes was undertaken so that this variation in camping satisfaction could be better understood.

This analysis indicated that explicit likes and dislikes were strongly related to camping satisfaction, thereby illustrating that these variables should be of value in attempting to understand variations in satisfaction. It was found that the likes and dislikes varied along a few, well defined, dimensions. Campers generally considered random campgrounds to be poorly designed in comparison with non-random campgrounds. Campers also found noise to be a major problem in random campgrounds, but the same was not true for non-random campgrounds. It was also felt that random campgrounds were dirtier than non-random campgrounds, however, regardless of the style of campgrounds they were located in, campers found unclean conditions to be most dissatisfying.

From the analysis of likes and dislikes it was established that some likes and dislikes have a higher degree of saliency in their effect on camping satisfaction than others. It was indicated that noise had the strongest effect on satisfaction, followed by design of the campground, lack of facilities in the campground, and the quality of the natural environment in and around the campground.

d) The Actual Campground Environment

Previous analysis has now conclusively illustrated that camping satisfaction varies substantially between random and non-random campgrounds. It was then necessary to discern if this variation in satisfaction was the result of the actual campground environment determining camper satisfaction, or whether it was the camper's perception of that environment which resulted in his gaining a certain level of satisfaction from his camping experience.

Analyses of the relationships between actual distances, and actual screening (representative of the actual campground environment), and satisfaction were carried out. It was found that only three significant relationships emerged, even after randomness of campground design was controlled for. The fact that only three significant relationships emerged from this analysis indicated that the actual camping environment did not determine satisfaction, but rather satisfaction was probably more closely related to variations in the campers' perceptions of their camping environments.

e) The Perceived Campground Environment

The findings of Chapter 7 indicated that camping satisfaction was more dependent upon how the individual perceived the campground environment, rather than being dependent upon the actual campground environment. However, it was found that not all the perception variables used in this study as measures of the perceived campground environment had the same effect on camping satisfaction. The variables which had the greatest effect on satisfaction were perceived screening, perceived distance to adjacent sites, and perceived noise.

While it was found that perceived screening and perceived distance to adjacent sites had an important effect on satisfaction by themselves, analysis also indicated that perceived distance to adjacent sites was modified by perceived screening. It was found that the higher the percentage of screening the lower the likelihood of campers perceiving themselves as being 'too close' to the adjacent sites. Conversely, the higher the percentage of screening the higher the propensity for campers to perceive themselves as being located 'just right' in relationship to adjacent sites. This, in part, accounted for variation in satisfaction between random and non-random campgrounds, as the average percentage of screening is much higher in non-random campgrounds than in random campgrounds.

Perceived screening also appeared to be an important factor in determining how campers perceived their location relative to the nearest road. An absence, or lack of screening, as is the case in random campgrounds, results in a higher propensity for campers to perceive that they are 'too close' to the road.

Another variable which had a great effect on satisfaction was perceived campground noise. Campground noise was found to have the greatest effect on satisfaction in random campgrounds where the frequency of those perceiving these campgrounds as being 'too noisy' was greater than in non-random campgrounds. Furthermore, those who perceived random campgrounds as being 'too noisy' were most likely to have been highly dissatisfied with their camping experience. The effect the perceived noise has on satisfaction in random campgrounds was probably the result of lack of designated sites in these campgrounds. This allows campers to congregate together, which inevitably results in parties which generate nuisance noise.

Campers' perceived location relative to the major water based recreation area in the park was a perception variable which had a significant impact on satisfaction. Results indicated that most campers desired to be within easy walking distance of the water, but not so close that they would have to worry about small children wandering to the water's edge.

It was found that campers' perceived location relative to the campground support facilities did not have a significant impact on camping satisfaction. This finding was supported by the fact that the campers' perceived location relative to firewood, water, and toilet facilities were ranked as the least important of all the perception variables in their impact on camping satisfaction.

C. Methodological Procedures

Two groups of recommendations will be presented under this sub-heading. The first group of recommendations involve alteration in the questionnaire utilized in this study and its application. These recommendations are applicable to any social science research carried on in campgrounds employing the questionnaire technique. The second group deals with other on-site measures.

a) The Questionnaire and its Administration

The researcher must be aware that on-site interviewing, conducted in the campground environment, requires that the respondent give up a portion, albeit a small portion, of his leisure time to respond to the questions. Even though the response rate is very high the validity of the responses may decrease with the length of the interview as the respondent, who is usually intent upon relaxing or participating in an on-site activity, does not have an attention span long enough to deal with a lengthy questionnaire.

There are two methods of combatting this fall-off in validity of response encountered when conducting on-site interviewing. First, the researcher should only use the on-site interviewing technique when it is desirable that the respondent be cued by the environment in which he is located (as was the case in this study). If this is not critical to the research, it is better to gather data away from the campground using other mailout questionnaires, or door-to-door interviews, as the quality of the response will be improved by the increased attentiveness of the respondent (even though the refusal rate may be considerably higher). The researcher must also be cognizant of the fact that the camper is recreating while he is on-site and should not be interrupted unless absolutely necessary. It was found during the field work for this study that many people had been subject to interviewing previously and were becoming increasingly sceptical as to its necessity. Therefore, consideration for the people we are attempting to help is warranted.

The second method of combatting the fall-off of validity in response is through judicious use of the questionnaire. The questionnaire used in this study was, by necessity, lengthy, covering a diverse range of topics. This was necessitated by the need for data to test a small number of major objectives and a large number of ancillary objectives which represented relationships which were all thought to have possible impacts on camping satisfaction. Data analysis indicated that many of the questions produced no significant results whatsoever. Therefore, the questions which probed for information on these insignificant relationships were the major contributors to making the questionnaire as lengthy as it was. Some questions which could have been deleted from this study's questionnaire were question numbers 4, 9, and the 'why' question after questions 10B through 10F (see Appendix A).

As was previously mentioned, when administering an on-site questionnaire it must be understood that the camper is only willing to spend a limited portion of his on-site time with an interviewer responding to questions before he either terminates the interview, or, as is most frequently the case, he begins to lose interest in the questions and answers for expediency's sake only. Two possible techniques, both aimed at minimizing the time needed to conduct an on-site interview, may be employed here.

First, pre-testing of a large, all inclusive, questionnaire can be conducted on a representative sample. Preliminary data analysis can then be conducted on the data so that an indication may be sought on where the important relationships for a given study lie. The researcher can remove from the questionnaire after the pre-test all questions which do not produce data relevant to his study, thereby ending up with a smaller, rationalized questionnaire. This method may be desirable if only one individual is to conduct the interviewing. The advantage of this method is that it will generate data for the researcher on specific relationships which are of importance, without spending a long period of time with each respondent. The shorter time required to conduct an interview results in a higher level of validity in the responses, and also allows the interviewer to talk to more people, thereby increasing the sample size and the strength of the inferences which can be drawn from the data.

As is the case with most research techniques in the social sciences, this technique has a severe limitation. This limitation takes two forms; first, it is impossible to do a pre-test of sufficient size to generate data for the test for relationships and do the actual field work in the same field season (at least not in Canada); second, in doing the pre-test the questionnaire is of such a length that the problem that the pre-test is trying to solve (i.e., shortening a lengthy questionnaire) emerges here.

Therefore, to use this technique the researcher must be willing to do two field seasons of research. The researcher must also realize that the responses on his pre-test questionnaire will not have the validity of responses to the final shorter questionnaire, however the responses garnered will be sufficient to indicate areas where relationships may be expected to exist.

The second, and more realistic, option for reducing the length of the questionnaire is to employ a multiple questionnaire technique. Such a technique has proven highly efficacious when dealing with large sample sizes (e.g., Hendee, 1967). However, if this technique is to be employed along with on-site interviewing it would be necessary to use more than one interviewer to obtain the necessary sample size for each questionnaire. When utilizing this technique each questionnaire should have a core of identical questions which would refer to the dependent variable(s) and different questions on each questionnaire on the various independent variables. For on-site interviewing this would have the effect of reducing interview time (due to the brevity of the questionnaire), hence, positive effects on the validity of the interview.

b) Modification of Campground Research Techniques

i) Revised Distance Measurement

If distance measurement within the campground is of critical importance to future research the author recommends, if the resources are available, that the tape measure not be used and low level panchromatic aerial photography be substituted in its place. The use of the tape measure produced some distortion in actual distances, especially in areas of dense inter-site vegetation where it was impossible to obtain a straight line measurement. The use of low level aerial photography, as demonstrated by Cordell and James (1972), would preclude the use of the tape measure, thereby allowing for more accurate distance measurements.

ii) Revised Noise Measurement

As was demonstrated in Chapter 7, the perception of noise has a dramatic effect on satisfaction. Unfortunately, the technique used to record actual noise levels was ineffectual, as it was not able to record nuisance noise at the time of its occurence. Noise level measurements were taken immediately after the on-site interview. If the respondent perceived the campground to be 'too noisy', he was usually referring to late evening or night noise when he, or his family, were attempting to sleep. Therefore, there was no relationship between the respondent's perception of noise in the campground and the actual noise level recorded after the on-site interview.

Knowing the actual noise level is of practical importance as it would make managers and wardens aware of what the camper's general tolerance level for both day and night noise is. To monitor the noise level in campgrounds it would be necessary to have unmanned decibel readers at strategic points throughout the campground which would be able to record variations in noise levels of 24 hour periods on paper printout.

c) Summary and Conclusion

By way of summary and conclusion, the methodology employed in this study had two purposes: 1) to gather data on the actual campground environment, and 2) to gather data on the perceived campground environment. As is the case with most social science methodologies, there were a number of strong points in the techniques employed here, as witnessed in the amount of very useful data gathered for this study. Furthermore, there were also drawbacks to the techniques used here, and possible remedies for these weaknesses have been presented above. However, as was mentioned earlier, all one can hope to accomplish using the crude tools of social science research is to maximize the strengths of the technique used, while attempting to minimize its weaknesses. It is hoped that this has been accomplished here.

D. Discussion

Some implications of a conceptual nature arise out of the findings reviewed earlier. First, this study has indicated the value of the familiarity hypothesis to understanding on-site camping satisfaction. It appears that those who have had previous camping experience at a particular campground are more likely to be satisfied than those who have not had this previous experience. The familiarity hypothesis has been utilized in the past to illustrate how campers choose where to recreate; however, this study has also linked the familiarity hypothesis directly to on-site satisfaction.

Earlier, it was found that no relationship existed between camping satisfaction and the profile variables. Now it is possible to postulate a link which may exist between profile variables and camping satisfaction, a link which may be important in the future as it has been shown in this study, and others, that profile variables do little to explain variation in on-site behaviour. However, profile variables are related to camping preference and choice and therefore should be related, in some manner, through the familiarity hypothesis to on-site satisfaction. Therefore, the familiarity hypothesis may be an intervening step between the profile variables, which do explain camping preference (as does the familiarity hypothesis), and camping satisfaction, which is also affected by previous camping experience.

The findings of this study indicate that variation in perception of the campground environment affects how satisfied an individual camper will be on a given camping excursion. In this study the major variation in perception occurred between random and non-random campgrounds. Results have indicated that campers are more satisfied in non-random than random campgrounds because they perceive that there is less encroachment on their campsite by their fellow campers. The variables found to have the greatest effect on satisfaction, perceived screening, perceived distance to adjacent sites, and perceived noise, are all related to limiting the amount of actual physical or psychological encroachment which can take place at a given site. The amount of space and screening a camper desires to limit this encroachment was referred to as "camping space".

The fact that the important variables were all related to maintaining the campers' privacy leads on to the conclusion that campers, regardless of whether their goals in camping are social or not, still desire what can be considered a traditional goal in camping - solitude.

By way of summation and conclusion, while the actual campground environment has been found to have little impact on camping satisfaction, it is the actual campground environment which must be altered if changes are to be made to improve the level of camping satisfaction. By implication, this study is suggesting that the actual campground environment, rather than determining behaviour itself, should have its form determined by the behaviour and preferences of the campers.

E. Directions for Future Research

In the area of social science research there are a number of possible areas for further research which arise from this study. To begin, one important area for research would be a validation of the findings of this study by conducting similar research in similar campground environments outside Alberta. Comparability of results could be ensured by using a method of statistical elaboration similar to the one employed here.

Also of importance, but not for the purposes of validation, is to see if this research methodology would produce similar findings in environments distinctly different from the Aspen Belt - Foothills regions where this research was conducted. For instance, do campers in prairie environments have different space requirements than the campers in this study? Similarly, do those who use Rocky Mountain National Park campgrounds, where the scenic element is of such importance, have the same requirements as campers in this study? If such studies were to be carried out, how much of the variance in the results can be accounted for by differences in management agencies?

Of both theoretical and practical importance would be the understanding of how "camping spaces" differ between campgrounds for different development intensities. Such a study could serve to validate the "camping space" concept as well as understanding how it may vary between different styles of campgrounds.

Future research may also lead to the improvement in the measuring of camping satisfaction. What is needed in recreation research is a validated measure of camping satisfaction which would have wide ranging applicability, and could be administered in a minimal length of time. Such a measure would ensure some measure of comparability between studies employing it.

Another area for future research is on the familiarity concept of recreation choice. As was mentioned in the preceding section, this concept could be the link between profile variables and on-site camping satisfaction. Research could identify what the relationships are between profile variables and campground choice and whether these variables can truly be used as predictors of on-site behaviour.

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APPENDIX A

Questionnaire

Respondent No.__________ Campground__________ Site No. __________

Date of Interview______________ Time of Interview______________

Hello, I am from the University of Alberta and I wonder if you would mind answering a few questions on camping.

1) How many days have you been camped at this campground?

2) Have you camped at this campground before?

1. Yes 2. No

3) Why did you choose this particular campground?

(PROBE: WHY?)

4) Why did you choose this particular site you camped on?

(PROBE: WHY?)

5) What are some of the things you particularly like about this campground?

6) What are some of the things you dislike about this campground?

Now I would like to ask you a few questions on your previous camping experience.

7) How many years have you been camping?

8) Which of the following styles of camping have you done in the past?

3.

1) Camping in larger campgrounds with showers, washrooms and other modern camping conveniences.	1.	1.
	2.	2.
2) Camping in medium to smaller campgrounds with dry pit toilets and water supply only.	3.	3.

3) Camping in the backcountry with no facilities.

(IF RESPONDENT NAMES MORE THAN ONE OF THE ABOVE PROBE FOR WHICH TYPE HAS CONSTITUTED THE BULK OF THEIR EXPERIENCE AND WHY. USE FIRST COLUMN TO RECORD PREVIOUS PARTICIPATION AND SECOND COLUMN TO RECORD BULK OF EXPERIENCE)

9) Where have you done most of your camping?

Now some questions on your campsite. In the next few questions you will be asked how you feel you are located relative to certain campground facilities. Choose one of the following answers: 'too far', 'just right', or 'too close'.

10) A) adjacent campsites

B) toilet facilities

C) water supply

D) roads

E) firewood

F) major landform attraction

11) Do you feel that the amount of screening between your campsite and neighbouring campsites and roads is:

too much	just right	too close
1.	2.	3.

(PROBE: WHY?)

12) How do you find the noise at this particular campsite?

too noisy	just right	too quiet
1.	2.	3.

Would you mind giving me a few facts about yourself?

13) How many years of education do you have?

1. Elementary school (grades 1-8)

2. High school (grades 9-12)

3. University or college (post secondary)

14) Could you tell me which of the following categories your family's income falls into:

1. below $9,000

2. $9,000 - $15,000

3. over $15,000

15) Would you mind telling me what year you were born in?

16) What is your occupation?

16b) What is your marital status?

17) Where do you live? (RECORD POPULATION UNDER #18)

If you were not born there where were you born and raised? (RECORD POPULATION UNDER #18)

18) How many people live there?

1. 0-4,999
2. 5,000-19,999
3. 20,000-49,999
4. 50,000-99,999
5. 100,000-500,000
6. over 500,000

19) How many people are in your party?

(IF MORE THAN ONE) Who is travelling with you?

20) Could you describe how you feel about your stay at this campsite?

(PROBE: WHY?)

21) Would you return to this campground?

22) Would you return to this campsite?

23) Do you have any further comments to make?

(THE FOLLOWING ITEMS ARE TO BE COMPLETED AFTER THE INTERVIEW)

24) Sex of the respondent.

1. male 2. female

25) Type of equipment used.

1. motor home 2. travel trailer 3. tent trailer
4. truck camper 5. tent 6. other (specify)

26) Weather at time of interview.

27) Attendance at campground. (% OF CAPACITY)

28) Actual distances from campsite measured to the following items:

A) adjacent campsites (MEASUREMENTS TO ALL ADJACENT CAMPSITES SHOULD BE TAKEN. THE SITES BEING MEASURED SHOULD BE SPECIFIED BY NUMBER)

B) toilet facilities (THE NEAREST)

C) water supply (THE NEAREST)

D) roads: a) main campground road
b) nearest minor access road

E) firewood

F) major landform attraction

29) Noise level on site (TO BE TAKEN IMMEDIATELY AFTER THE INTERVIEW IS COMPLETED).

30) Average % of screening between measured campsite, the adjacent campsites, and the access road (STIPULATE WHICH SITES ARE BEING MEASURED. MEASUREMENTS ARE TO BE TAKEN FROM THE FIREPLACE).

31) Basic design type of campground.

32) The respondent was:

1. very cooperative
2. helpful
3. reluctant
4. uncooperative